

* * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 DEC 01 ChemPort single article sales feature unavailable
NEWS 3 APR 03 CAS coverage of exemplified prophetic substances enhanced
NEWS 4 APR 07 STN is raising the limits on saved answers
NEWS 5 APR 24 CA/CAplus now has more comprehensive patent assignee information
NEWS 6 APR 26 USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 7 APR 28 CAS patent authority coverage expanded
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY
NEWS 10 MAY 08 STN Express, Version 8.4, now available
NEWS 11 MAY 11 STN on the Web enhanced
NEWS 12 MAY 11 BEILSTEIN substance information now available on STN Easy
NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17 JUN 26 NUTRACEUT and PHARMAML no longer updated
NEWS 18 JUN 29 IMSCOPROFILE now reloaded monthly
NEWS 19 JUN 29 EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields
NEWS 20 JUL 09 PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields
NEWS 21 JUL 14 USGENE enhances coverage of patent sequence location (PSL) data
NEWS 22 JUL 27 CA/CAplus enhanced with new citing references
NEWS 23 JUL 16 GBFULL adds patent backfile data to 1855
NEWS 24 JUL 21 USGENE adds bibliographic and sequence information
NEWS 25 JUL 28 EPFULL adds first-page images and applicant-cited references
NEWS 26 JUL 28 INPADOCDB and INPAFAMDB add Russian legal status data

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

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* * * * * * * * * STN Columbus * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:59:26 ON 05 AUG 2009

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=> file reg
COST IN U.S. DOLLARS
SINCE FILE          TOTAL
ENTRY             SESSION
FULL ESTIMATED COST          0.22      0.22
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FILE 'REGISTRY' ENTERED AT 14:59:43 ON 05 AUG 2009
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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 COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 AUG 2009 HIGHEST RN 1172694-04-0
 DICTIONARY FILE UPDATES: 4 AUG 2009 HIGHEST RN 1172694-04-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

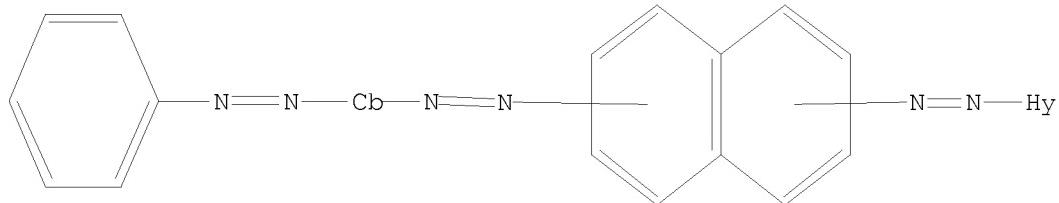
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1 STR
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Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 1384 TO ITERATE

100.0% PROCESSED    1384 ITERATIONS           5 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                      BATCH **COMPLETE**
PROJECTED ITERATIONS: 25449 TO 29911
PROJECTED ANSWERS:     5 TO 234
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L2 5 SEA SSS SAM L1

=> s 11 full
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SEARCH TIME: 00.00.02

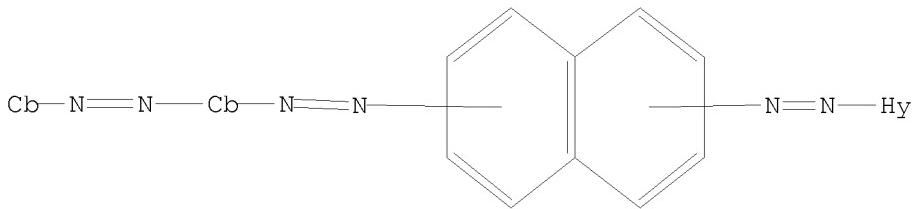
92 ANSWERS

L3 92 SEA SSS FUL L1

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L4 HAS NO ANSWERS
L4 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL SUBSET SCREEN SEARCH COMPLETED - 92 TO ITERATE

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SEARCH TIME: 00.00.01

92 ANSWERS

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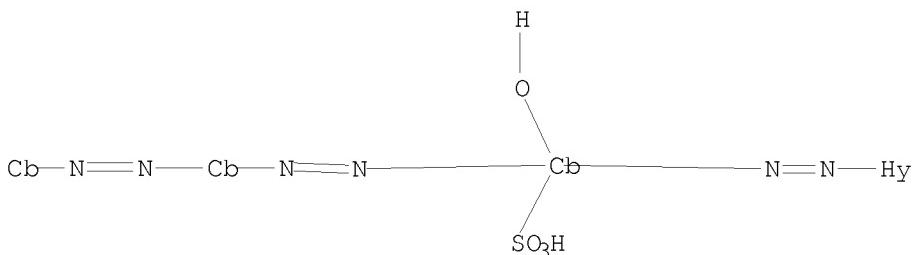
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L6 STRUCTURE UPLOADED

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L7 STRUCTURE UPLOADED

=> d 17
L7 HAS NO ANSWERS
L7 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL SUBSET SCREEN SEARCH COMPLETED - 92 TO ITERATE

100.0% PROCESSED 92 ITERATIONS 91 ANSWERS
SEARCH TIME: 00.00.01
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L8 91 SEA SUB=L3 SSS FUL L7

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COST IN U.S. DOLLARS SINCE FILE TOTAL
                           ENTRY SESSION
FULL ESTIMATED COST           282.04 282.26
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FILE 'CAPLUS' ENTERED AT 15:10:26 ON 05 AUG 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 5 Aug 2009 VOL 151 ISS 6
FILE LAST UPDATED: 4 Aug 2009 (20090804/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009
```

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

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=> s 18
L9 7 L8
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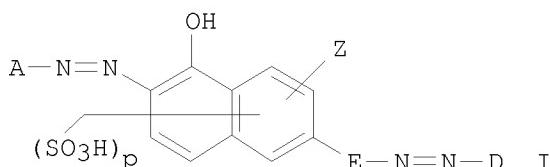
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L9 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:173868 CAPLUS

DOCUMENT NUMBER: 146:230985
 TITLE: Process for printing an image on a substrate,
 composition and azo dye compound for use in the
 composition
 INVENTOR(S): Monahan, Lilian; Double, Philip John; Bradbury, Roy
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007017631	A2	20070215	WO 2006-GB2862	20060731
WO 2007017631	A3	20070614		
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	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA		
EP 1915431	A2	20080430	EP 2006-765174	20060731
	R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR		
JP 2009504831	T	20090205	JP 2008-525613	20060731
PRIORITY APPLN. INFO.:			GB 2005-16243	A 20050808
			GB 2005-16244	A 20050808
			WO 2006-GB2862	W 20060731

OTHER SOURCE(S): MARPAT 146:230985
 GI



AB A process for printing an image on a substrate with high d. and good
 lightfastness, comprising applying to the substrate an ink composition which
 comprises a liquid medium and a compound of formula I; wherein: A and D each
 independently represent optionally substituted aryl or optionally
 substituted heteroaryl; E represents optionally substituted pyrazolyl; Z
 represents H, halogen, nitro, cyano, hydroxy, amino, carboxy, optionally
 substituted alkyl, optionally substituted alkoxy or optionally substituted
 aryloxy; and p is an integer from 0 to 5; provided that E does not have an
 optionally substituted carbonamide group of formula - CONR1R2 directly
 attached to it, wherein R1 and R2 each independently represent H,
 optionally substituted alkyl, optionally substituted cycloalkyl, or
 optionally substituted aryl. The printing is preferably ink jet printing.
 Also provided are compds. of formula I and ink compns. containing the same.
 IT 924311-51-3 924311-52-4 924311-53-5

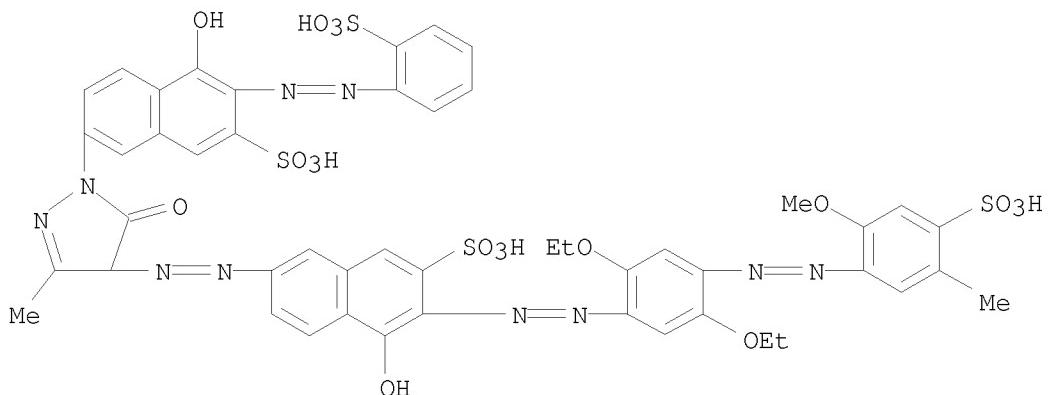
924311-54-6 924311-55-7 924311-56-8

924311-57-9 924311-58-0

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; manufacture of diazo naphthalene compds. and compns. for use in
ink-jet printing)

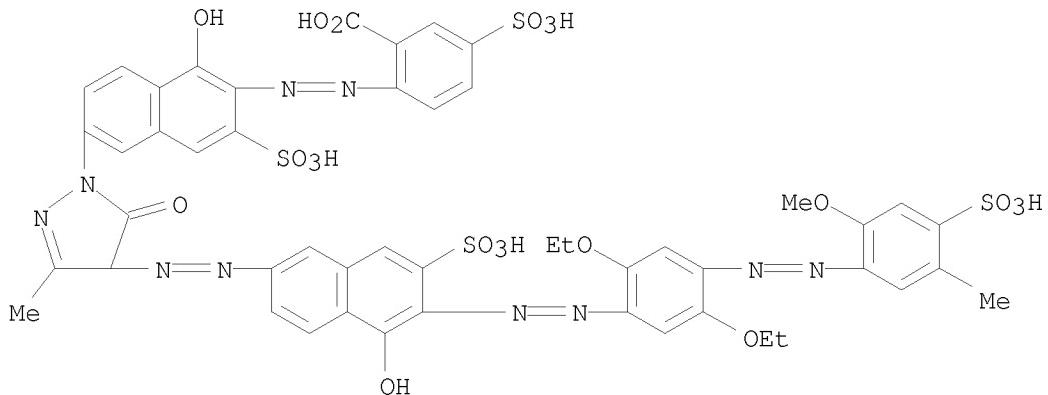
RN 924311-51-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-diethoxy-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazaryl]phenyl]diazaryl]-7-[2-[4,5-dihydro-1-[5-hydroxy-7-sulfo-6-[2-(2-sulfophenyl)diazaryl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazaryl]-4-hydroxy- (CA INDEX NAME)



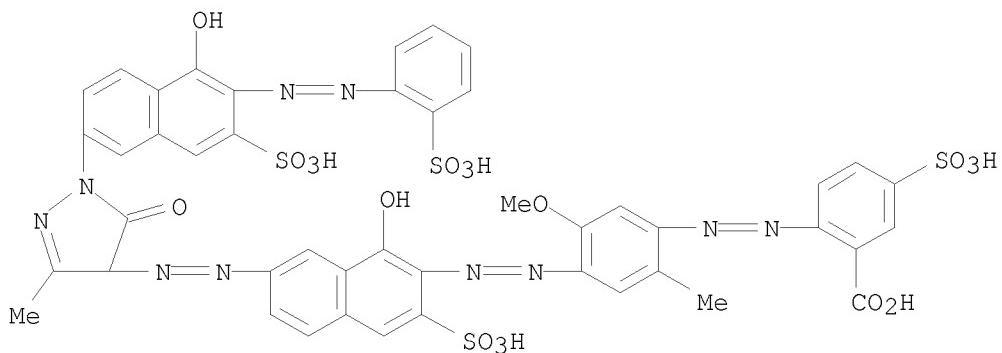
RN 924311-52-4 CAPLUS

CN Benzoic acid, 2-[2-[6-[4-[2-[2-[6-[2-[2,5-diethoxy-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazaryl]phenyl]diazaryl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazaryl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazaryl]-5-sulfo- (CA INDEX NAME)



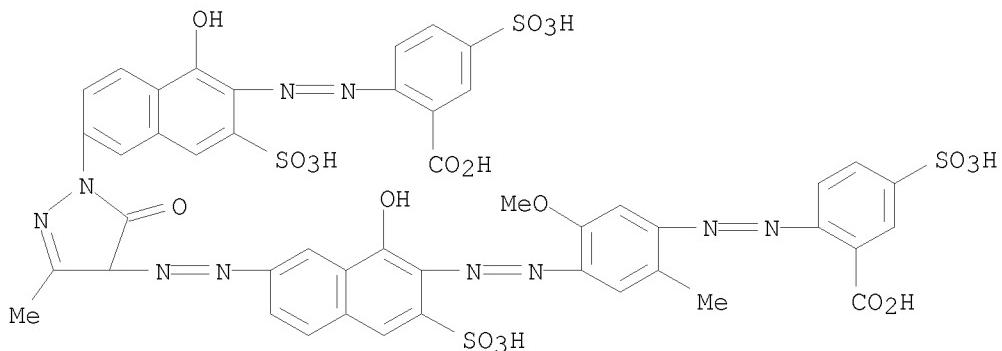
RN 924311-53-5 CAPLUS

CN Benzoic acid, 2-[2-[4-[2-[7-[2-[4,5-dihydro-1-[5-hydroxy-7-sulfo-6-[2-(2-sulfophenyl)diazaryl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazaryl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazaryl]-5-methoxy-2-methylphenyl]diazaryl]-5-sulfo- (CA INDEX NAME)



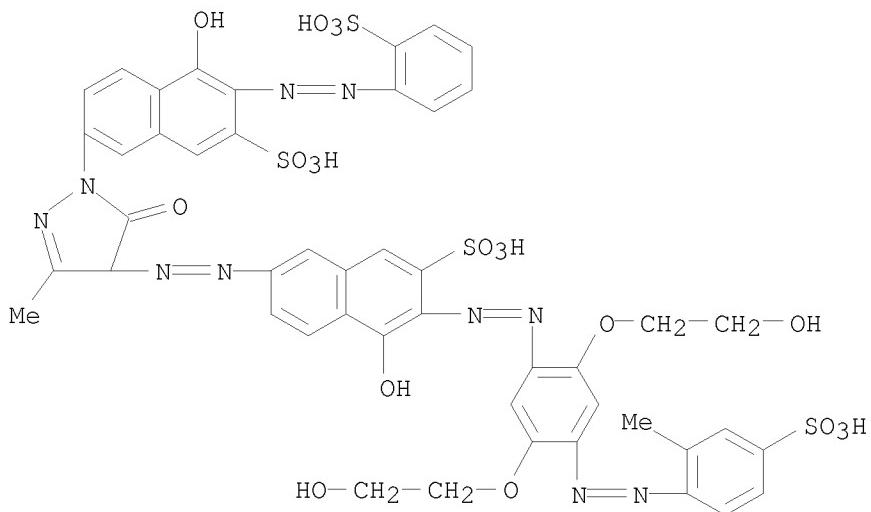
RN 924311-54-6 CAPLUS

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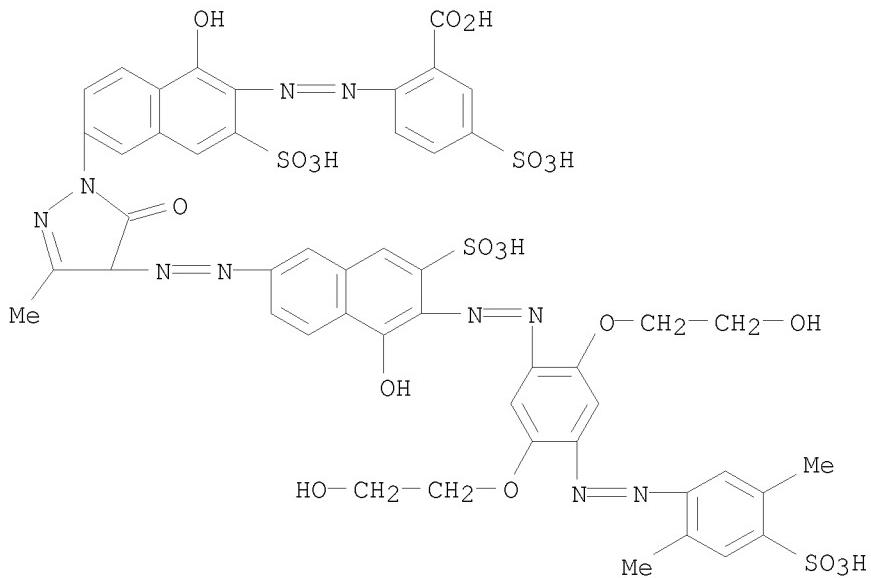
RN 924311-55-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-1-[5-hydroxy-7-sulfo-6-[2-(2-sulfophenyl)diazenyl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



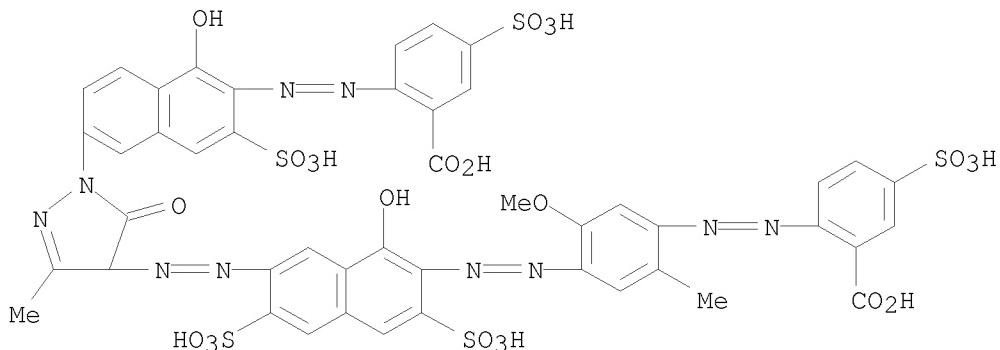
RN 924311-56-8 CAPLUS

CN Benzoic acid, 2-[2-[6-[4-[2-[2-[4-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-5-sulfo- (CA INDEX NAME)



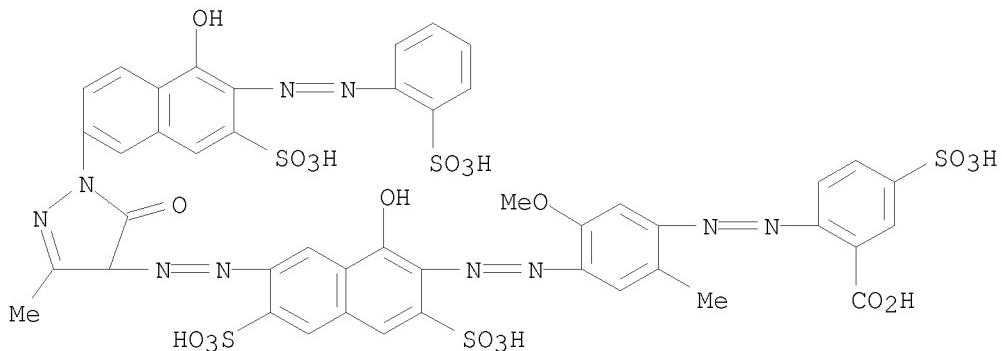
RN 924311-57-9 CAPLUS

CN Benzoic acid, 2-[2-[4-[2-[2-[7-[2-[1-[6-[2-(2-carboxy-4-sulfophenyl)diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]-5-methoxy-2-methylphenyl]diazenyl]-5-sulfo- (CA INDEX NAME)



RN 924311-58-0 CAPLUS

CN Benzoic acid, 2-[2-[4-[2-[7-[2-[4,5-dihydro-1-[5-hydroxy-7-sulfo-6-[2-(2-sulfophenyl)diazenyl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]-5-methoxy-2-methylphenyl]diazenyl]-5-sulfo- (CA INDEX NAME)



L9 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:490398 CAPLUS

DOCUMENT NUMBER: 143:28079

TITLE: Trisazo-dyestuffs for use as dyes and ink-jet inks

INVENTOR(S): Mistry, Prahalad Manibhai; Bradbury, Roy

PATENT ASSIGNEE(S): Avecia Inkjet Limited, UK

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

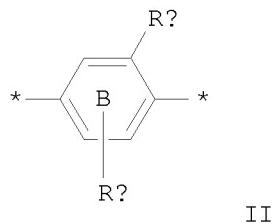
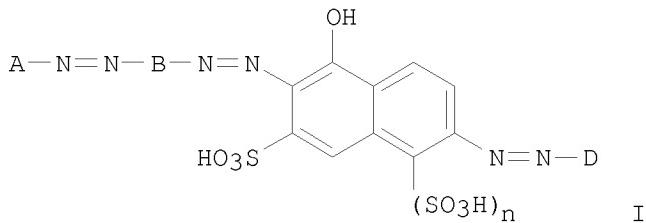
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005052065	A1	20050609	WO 2004-GB4868	20041118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1697467	A1	20060906	EP 2004-798583	20041118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007517082	T	20070628	JP 2006-540590	20041118
US 20070062409	A1	20070322	US 2006-579783	20060518
PRIORITY APPLN. INFO.:			GB 2003-26980 GB 2003-26997 WO 2004-GB4868	A 20031120 A 20031120 W 20041118

OTHER SOURCE(S): MARPAT 143:28079

GI



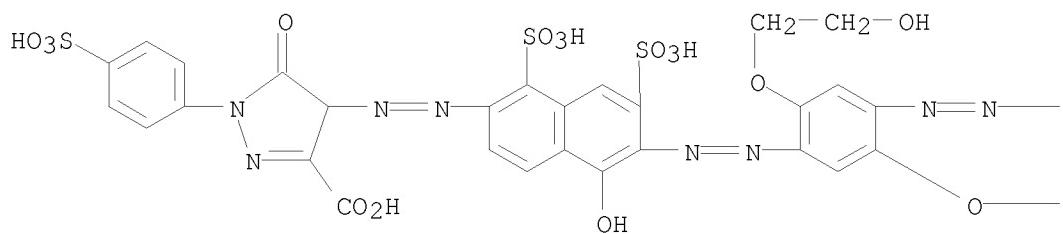
AB The invention relates to a compound of formula (I) or salt thereof: wherein A is optionally substituted Ph or naphthyl; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is a pyrazolyl group, with the proviso that when A is an optionally substituted Ph group and B is a phenylene group of formula: (II); wherein Ra is OH or a C1-4-alkoxy group; and Rb is H or a C1-4-alkyl group, hydroxy group, C1-4-alkoxy group, C1-3-dialkyamino group or a group of the formula NHCORc (wherein Rc is C1-3-alkyl or an amino group); and * shows the point of attachment to the azo linkages on B in formula (I); A is free from nitro groups. Also, claimed are compds., compns. and ink-jet cartridges for use in an ink-jet printer and substrate printed with an ink-jet printer.

IT	852909-45-6P	852909-46-7P	852909-47-8P
	852909-48-9P	852909-49-0P	852909-50-3P
	852909-51-4P	852909-52-5P	852909-53-6P
	852909-54-7P	852909-55-8P	852909-56-9P
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	852909-63-8P	852909-64-9P	852909-65-0P
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	852909-69-4P	852909-70-7P	852909-71-8P
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	852909-81-0P	852909-82-1P	852909-83-2P
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	852909-94-5P	852909-95-6P	852909-96-7P
	852909-97-8P	852909-98-9P	852909-99-0P
	852910-00-0P	852910-01-1P	852910-02-2P
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	852910-06-6P		

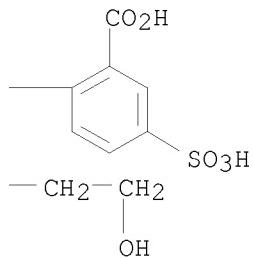
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of trisazo-dyestuffs for use as dyes and ink-jet inks)

RN	852909-45-6 CAPLUS
CN	1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



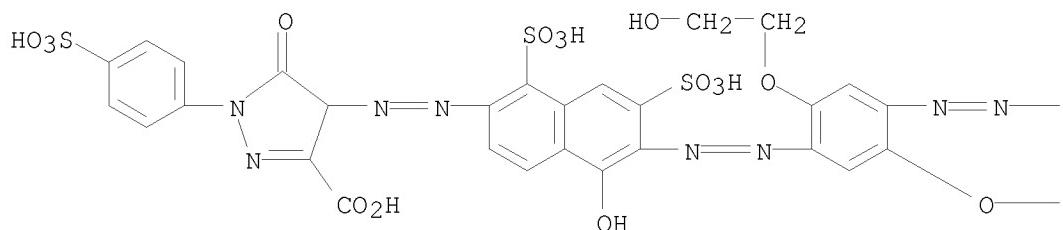
PAGE 1-B



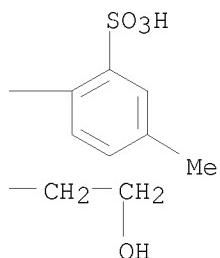
RN 852909-46-7 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

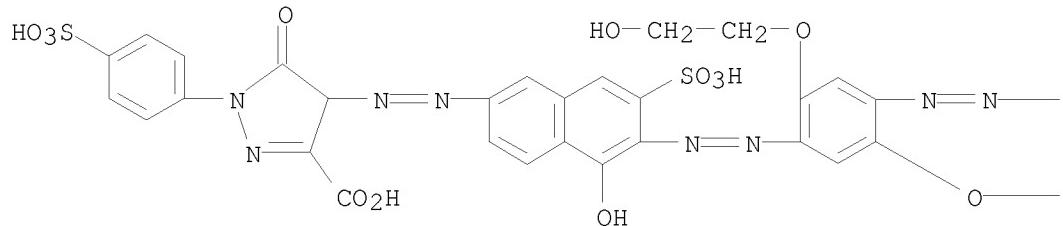


RN 852909-47-8 CAPLUS

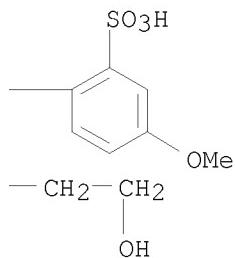
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-

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PAGE 1-A



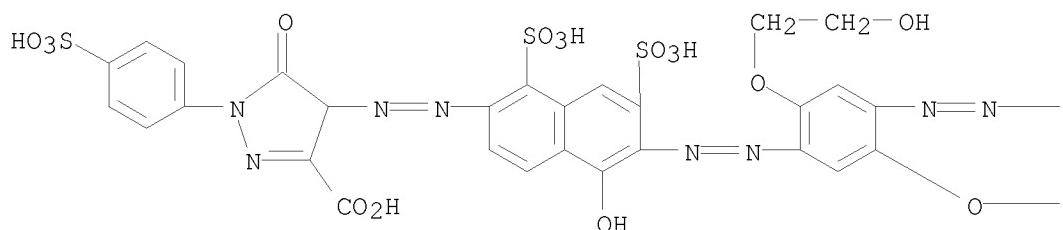
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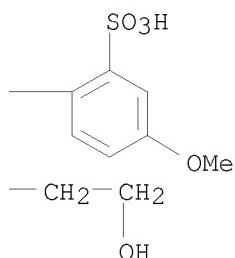
RN 852909-48-9 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazeny[phenyl]diazeny]-5-hydroxy-7-sulfo-2-naphthalenyl)diazeny]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



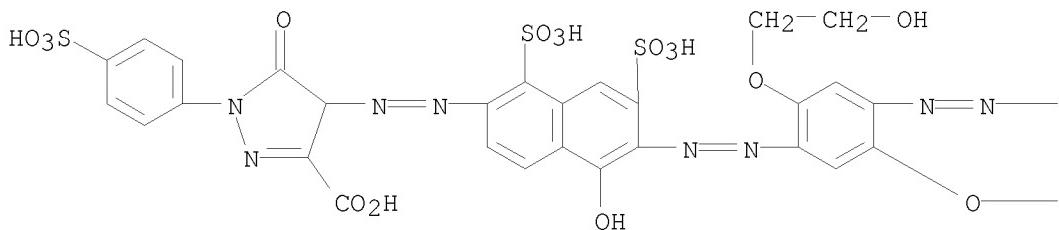
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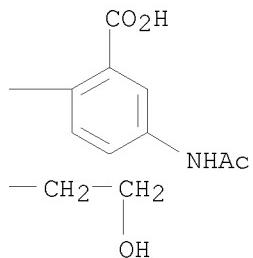
RN 852909-49-0 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-carboxyphenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



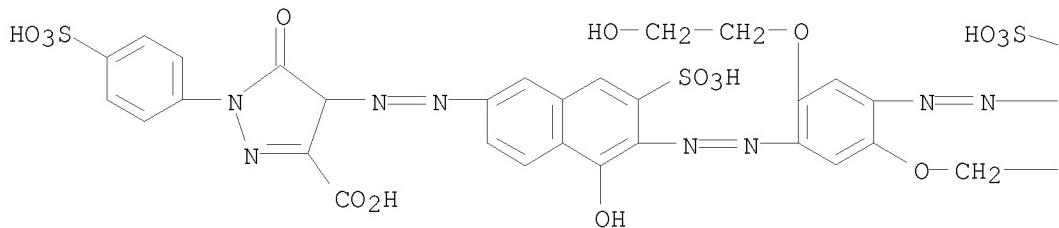
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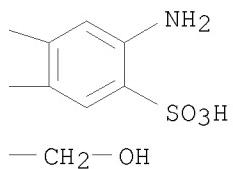
RN 852909-50-3 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2,5-disulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A

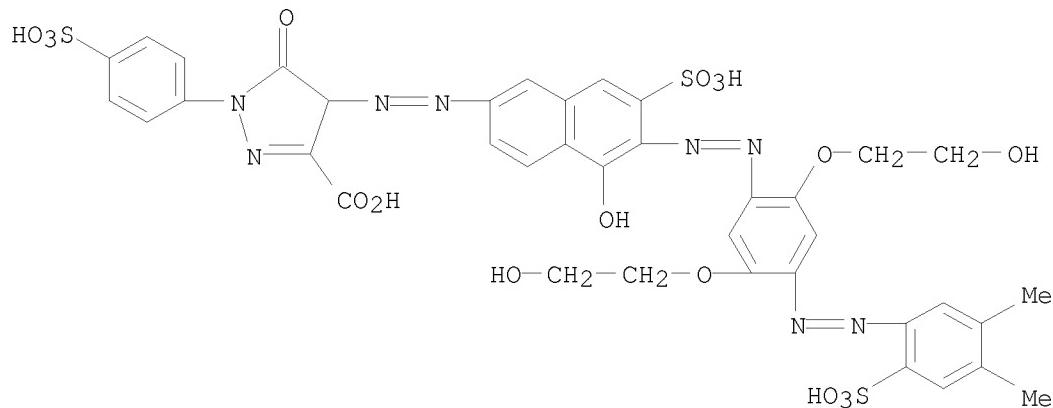


PAGE 1-B



RN 852909-51-4 CAPLUS

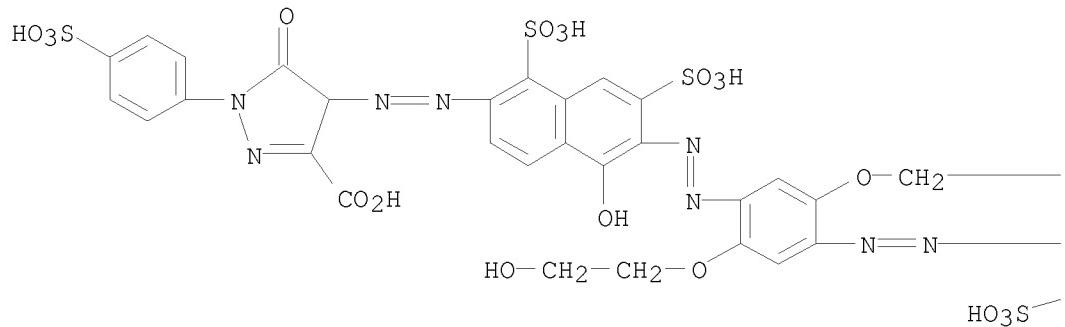
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4,5-dimethyl-2-sulfophenyl)diazaryl]-2,5-bis(2-hydroxyethoxy)phenyl]diazaryl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazaryl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



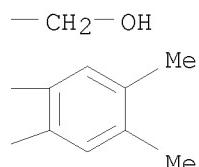
RN 852909-52-5 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4,5-dimethyl-2-sulfophenyl)diazaryl]-2,5-bis(2-hydroxyethoxy)phenyl]diazaryl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazaryl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A

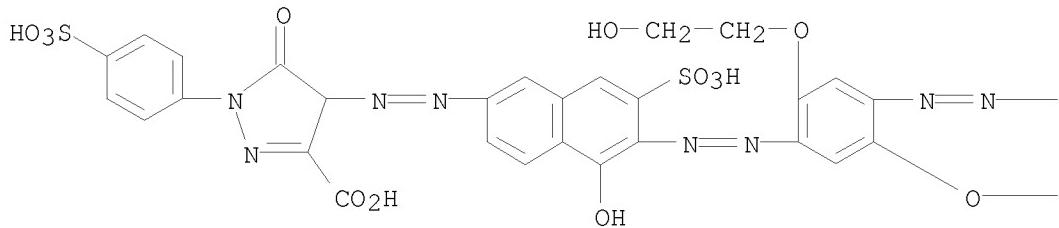


PAGE 1-B

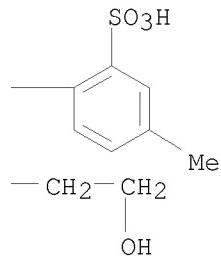


RN 852909-53-6 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfophenyl)diazaryl]phenyl]diazaryl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazaryl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

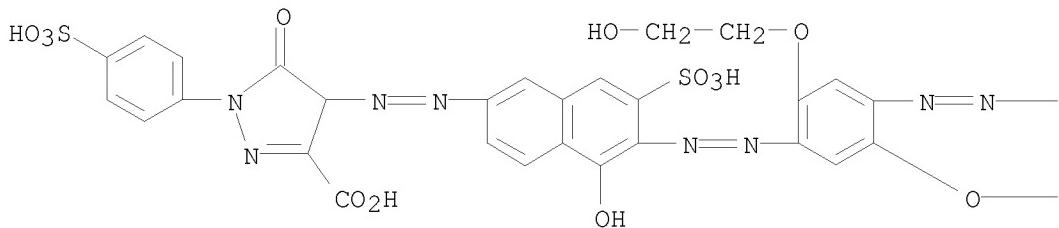


PAGE 1-B

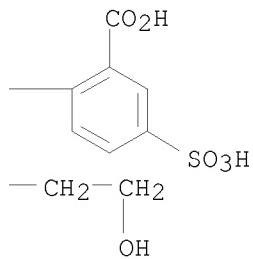


RN 852909-54-7 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazaryl]-2,5-bis(2-hydroxyethoxy)phenyl]diazaryl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazaryl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



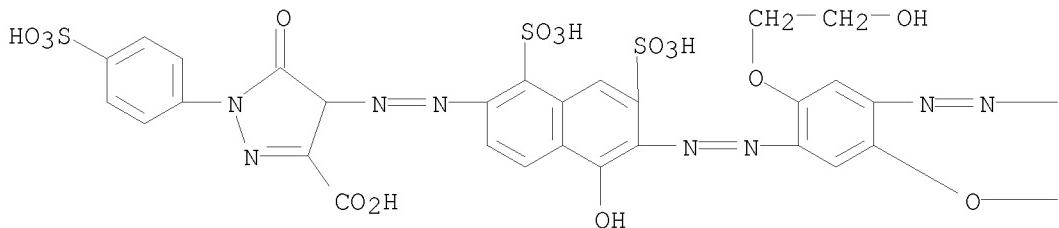
PAGE 1-B



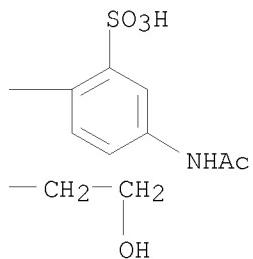
RN 852909-55-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



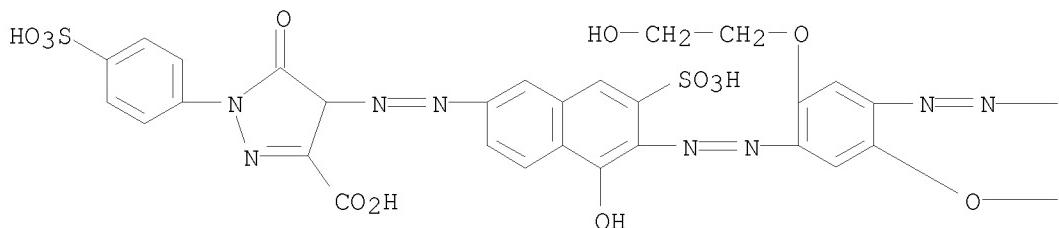
PAGE 1-B



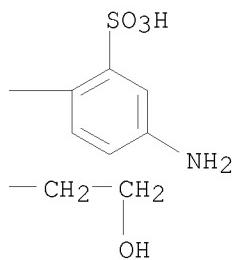
RN 852909-56-9 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



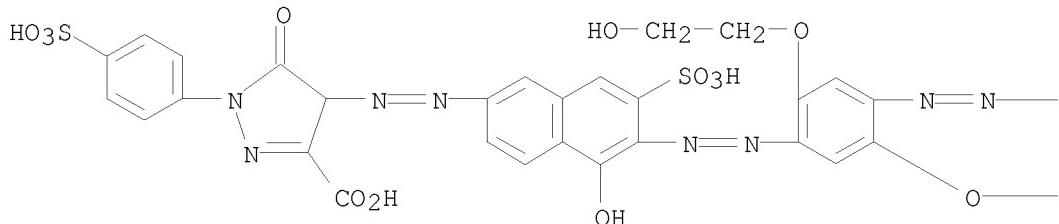
PAGE 1-B



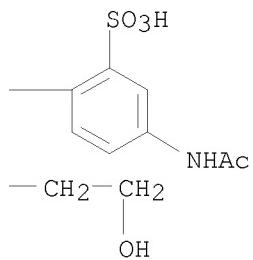
RN 852909-57-0 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



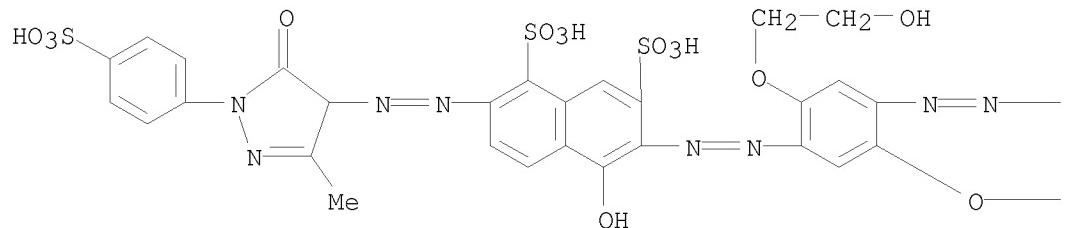
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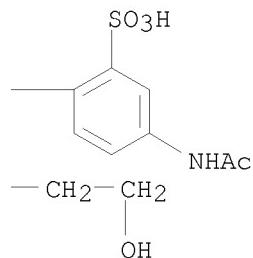
RN 852909-58-1 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-2-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



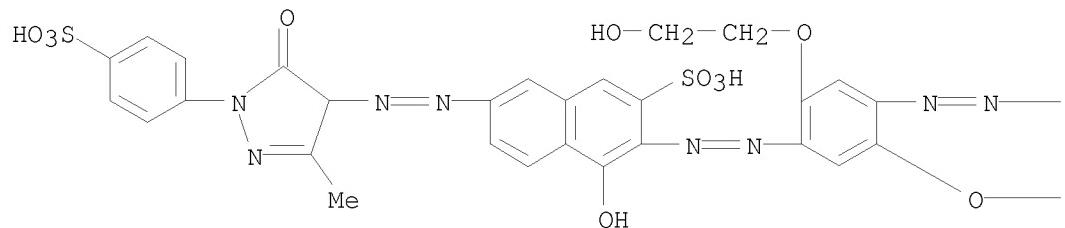
PAGE 1-B



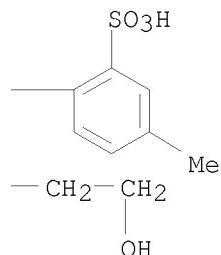
RN 852909-59-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfophenyl)diazaryl]phenyl]diazaryl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazaryl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



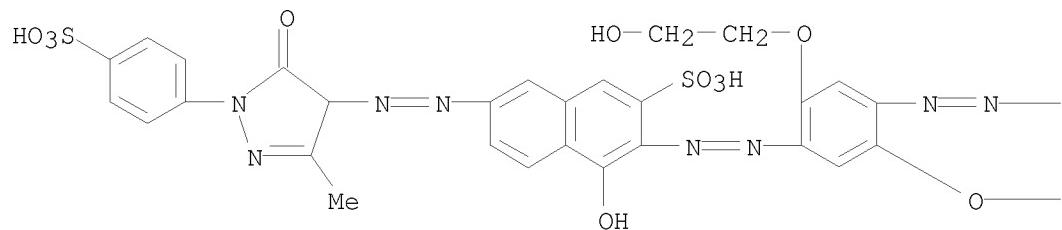
PAGE 1-B



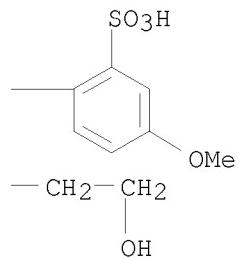
RN 852909-60-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl)diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl)diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



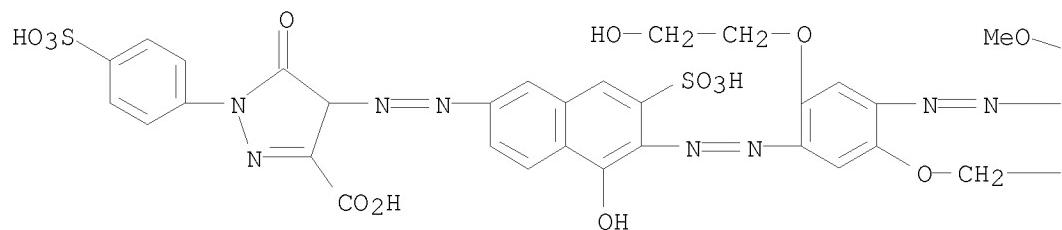
PAGE 1-B



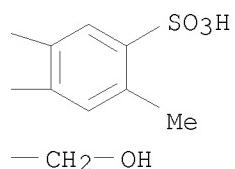
RN 852909-61-6 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



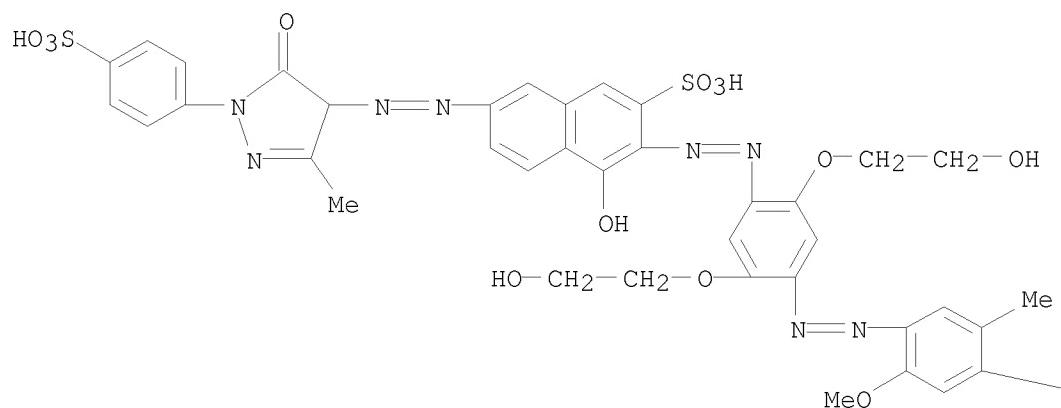
PAGE 1-B



RN 852909-62-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



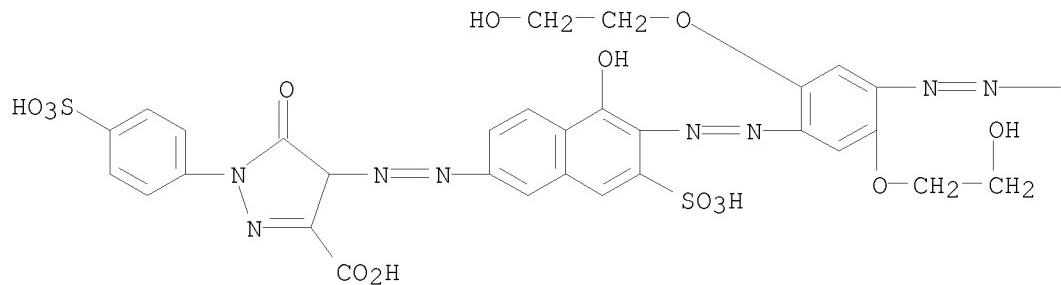
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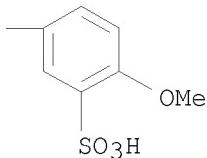
— SO₃H

RN 852909-63-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-3-sulfophenyl)diazeny]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

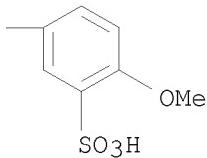
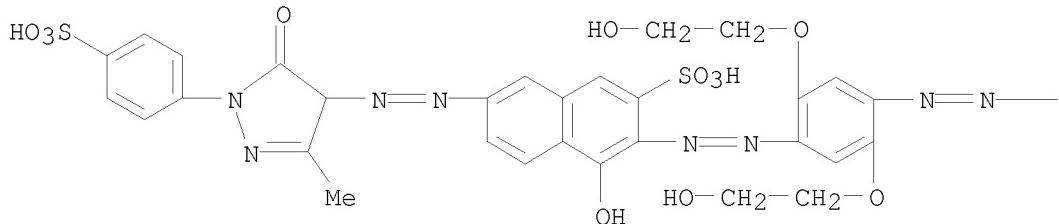
PAGE 1-A





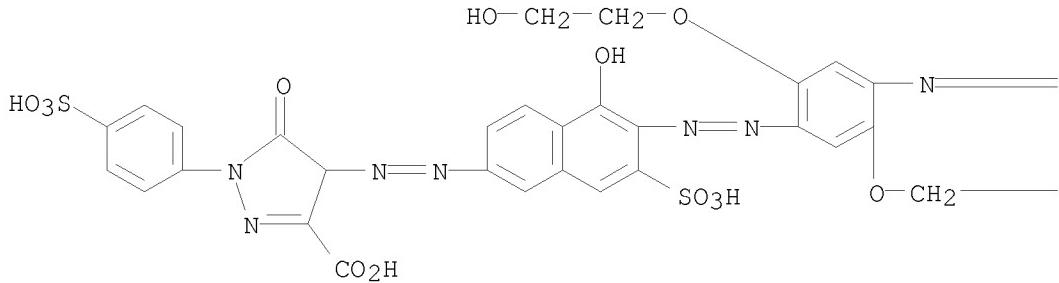
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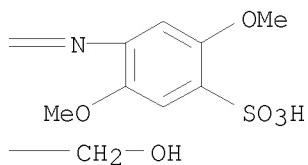
CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-3-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



RN 852909-65-0 CAPLUS

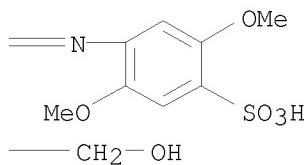
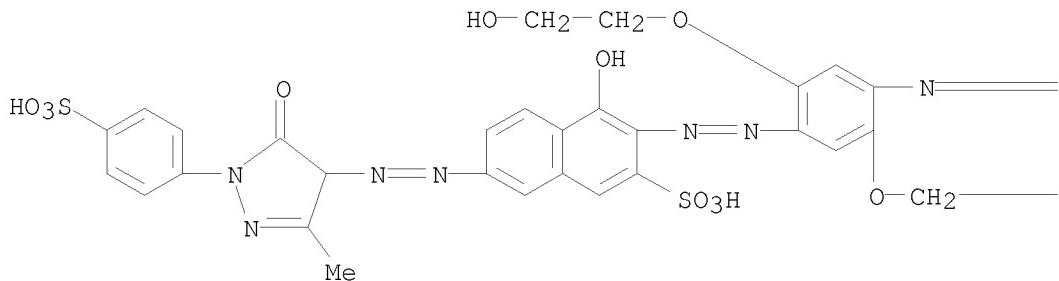
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,5-dimethoxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)





RN 852909-66-1 CAPLUS

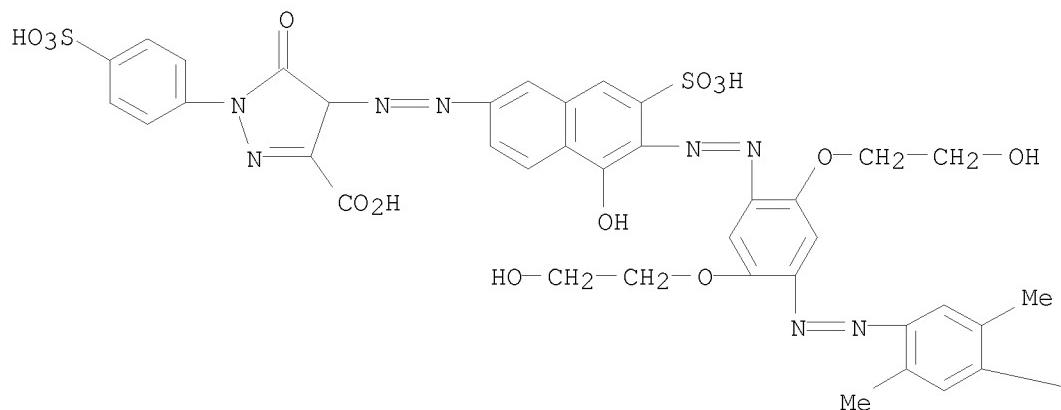
CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[4-[2-(2,5-dimethoxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



RN 852909-67-2 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



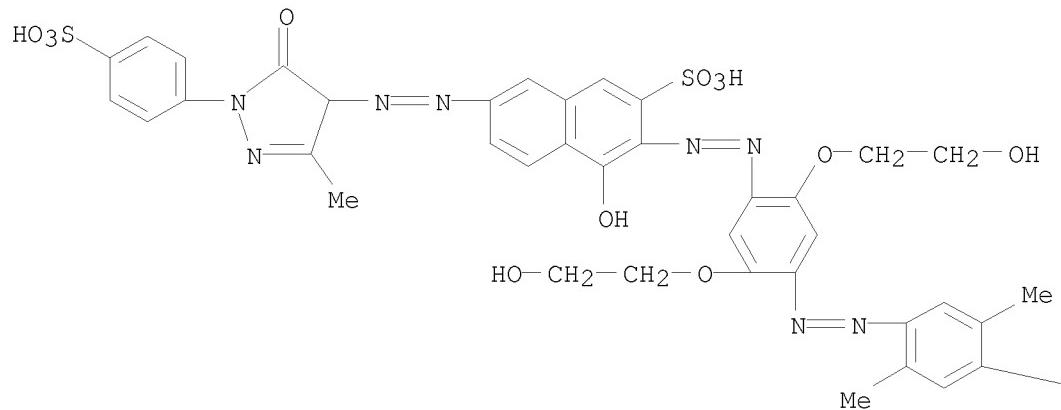
PAGE 1-B

— SO₃H

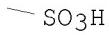
RN 852909-68-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A

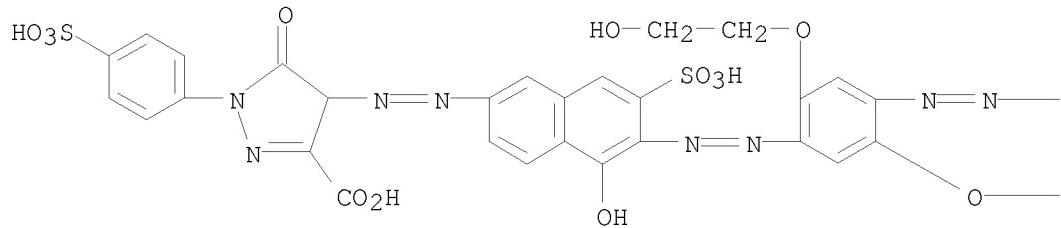


PAGE 1-B

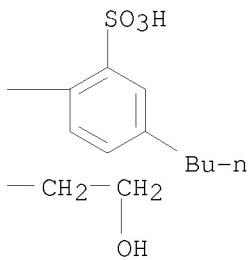


RN 852909-69-4 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-butyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

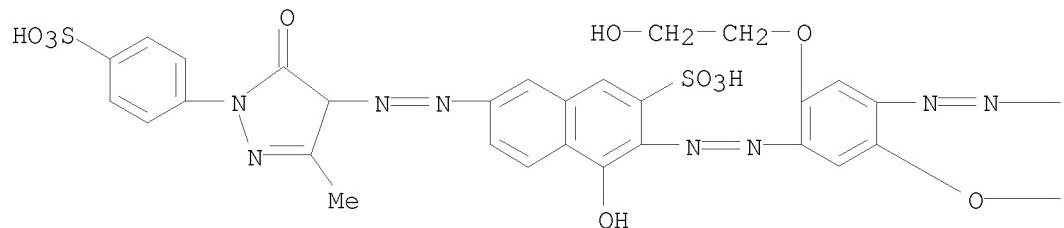


PAGE 1-B

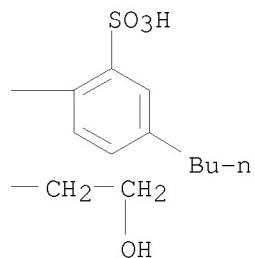


RN 852909-70-7 CAPLUS
CN 2-Naphthalenesulfonic acid, 3-[2-[4-[2-(4-butyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



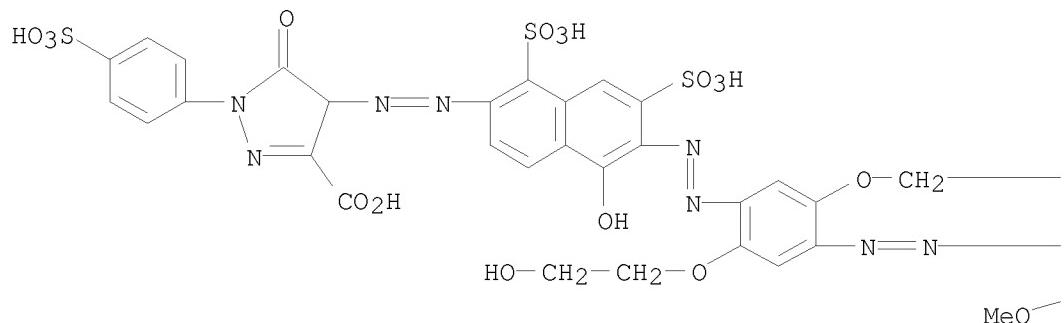
PAGE 1-B

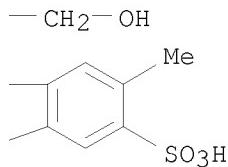


RN 852909-71-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

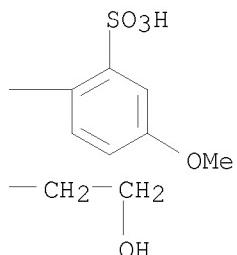
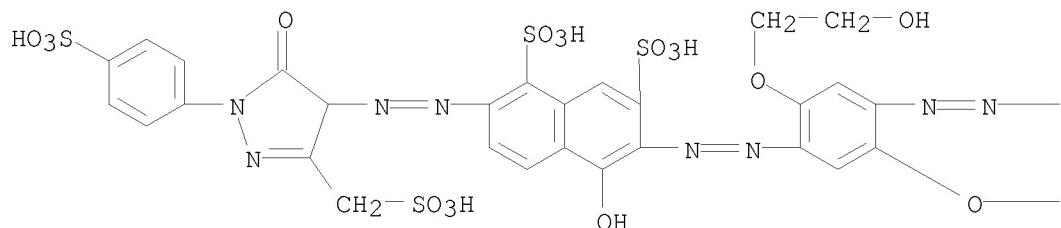
PAGE 1-A





RN 852909-72-9 CAPLUS

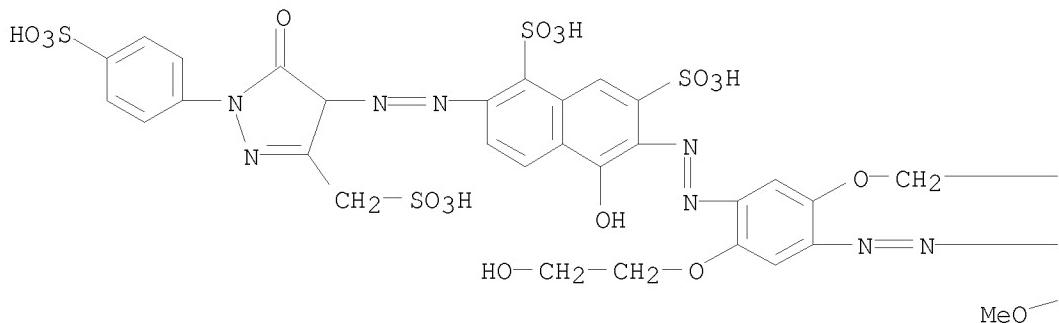
CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)



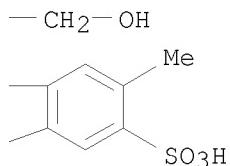
RN 852909-73-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



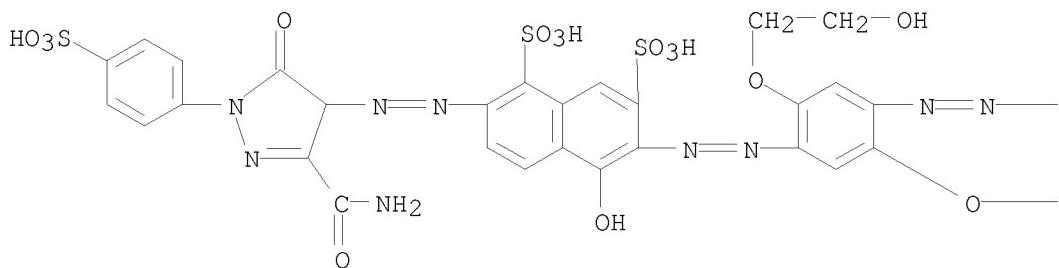
PAGE 1-B



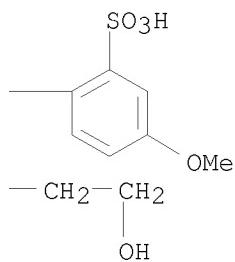
RN 852909-74-1 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



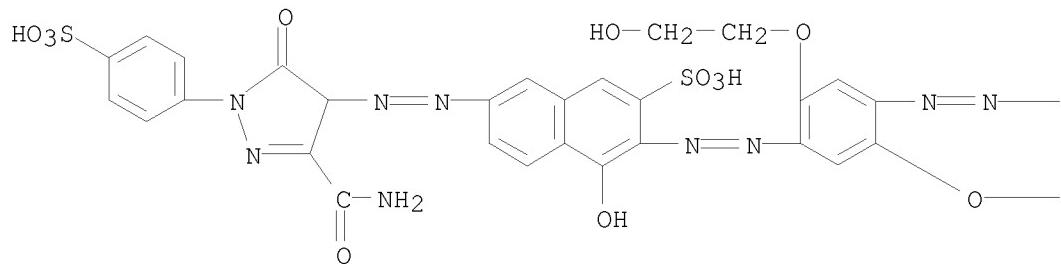
PAGE 1-B



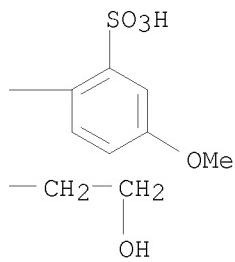
RN 852909-75-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



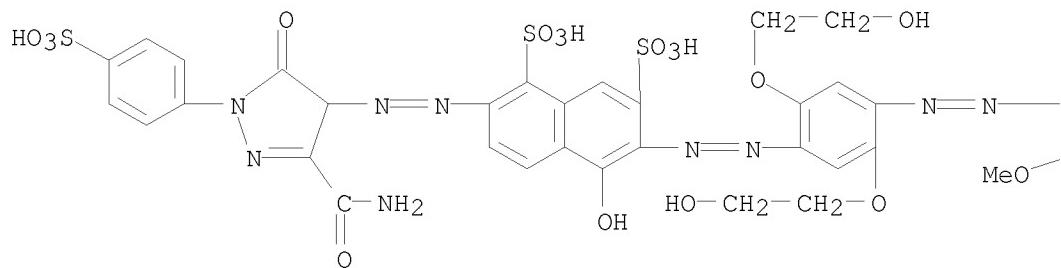
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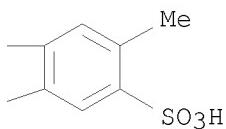
RN 852909-76-3 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



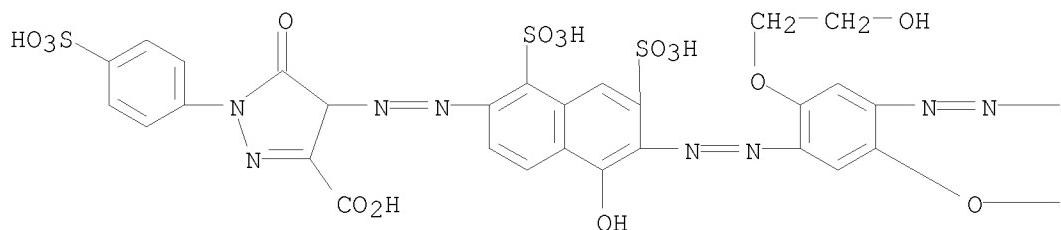
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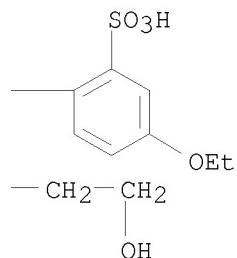
RN 852909-77-4 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-ethoxy-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



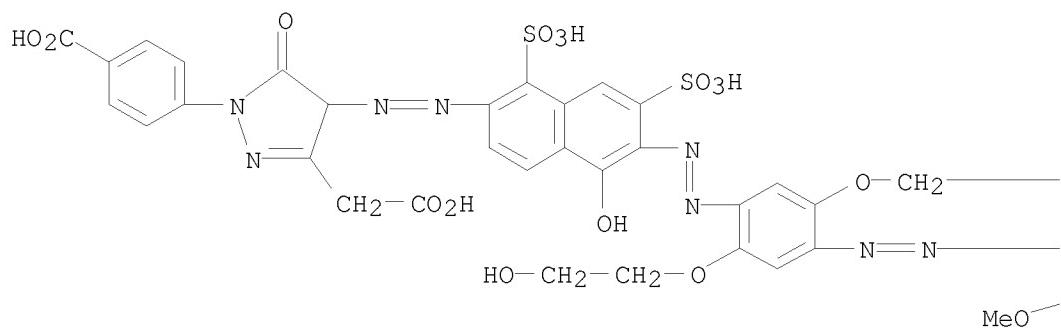
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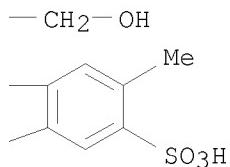
RN 852909-78-5 CAPLUS

CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-(CA INDEX NAME)

PAGE 1-A



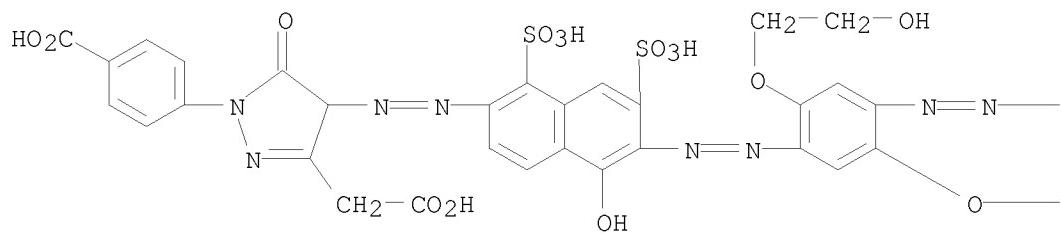
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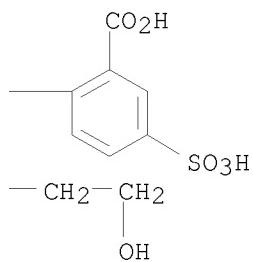
RN 852909-79-6 CAPLUS

CN 1H-Pyrazole-3-acetic acid, 1-(4-carboxyphenyl)-4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo- (CA INDEX NAME)

PAGE 1-A



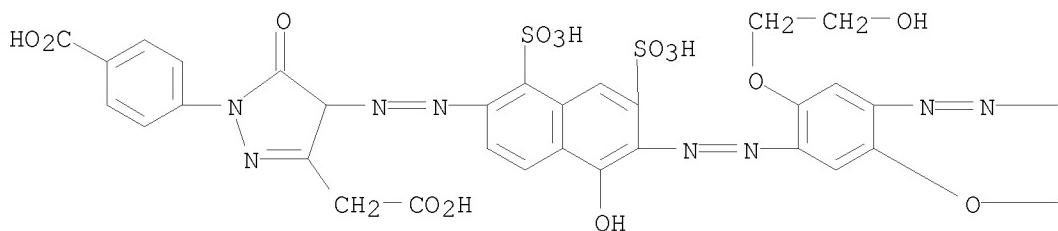
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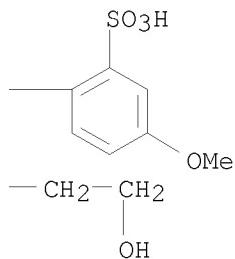
RN 852909-80-9 CAPLUS

CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazaryl]phenyl]diazaryl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazaryl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

PAGE 1-A



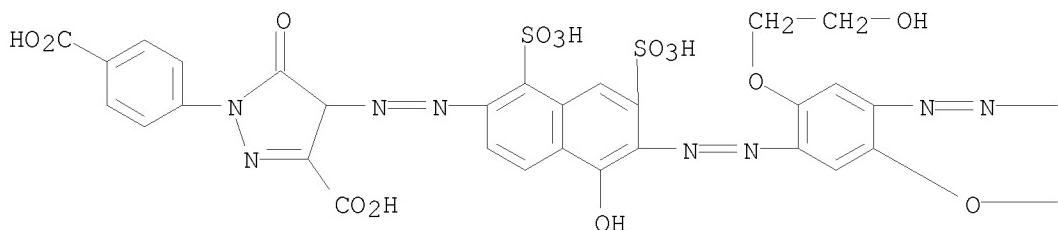
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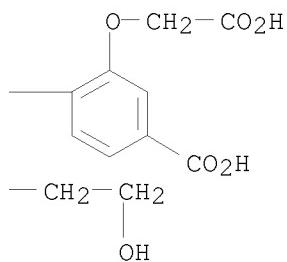
RN 852909-81-0 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-carboxy-2-(carboxymethoxy)phenyl]diazaryl]-2,5-bis(2-hydroxyethoxy)phenyl]diazaryl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazaryl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

PAGE 1-A



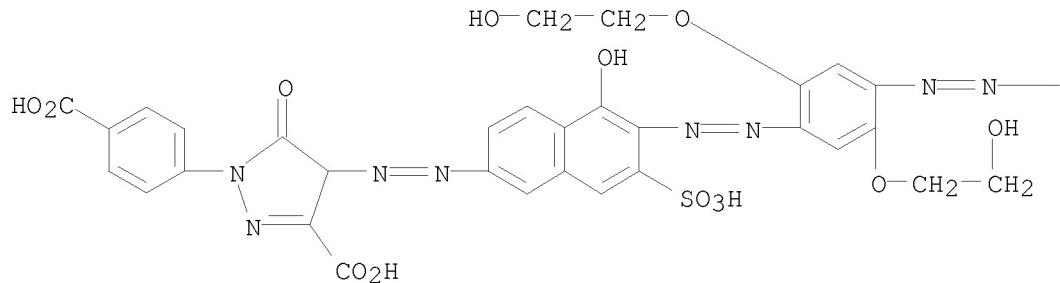
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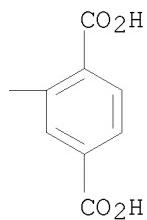
RN 852909-82-1 CAPLUS

CN 1,4-Benzenedicarboxylic acid, 2-[2-[4-[2-[6-[2-[3-carboxy-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



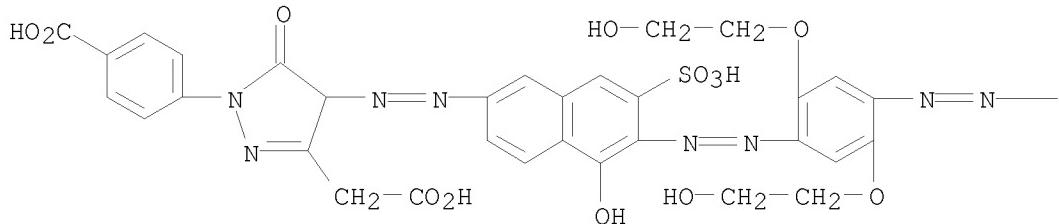
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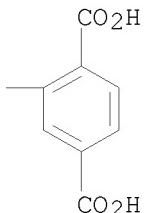
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PAGE 1-A



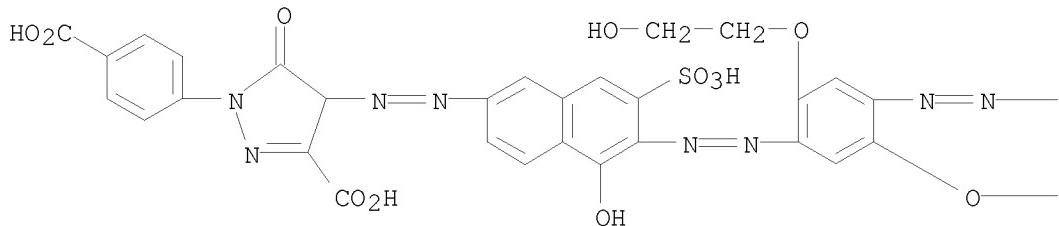
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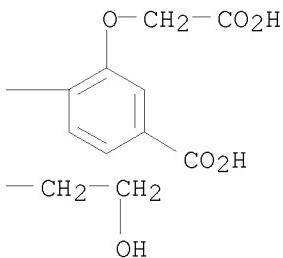
RN 852909-84-3 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-carboxy-2-(carboxymethoxy)phenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

PAGE 1-A



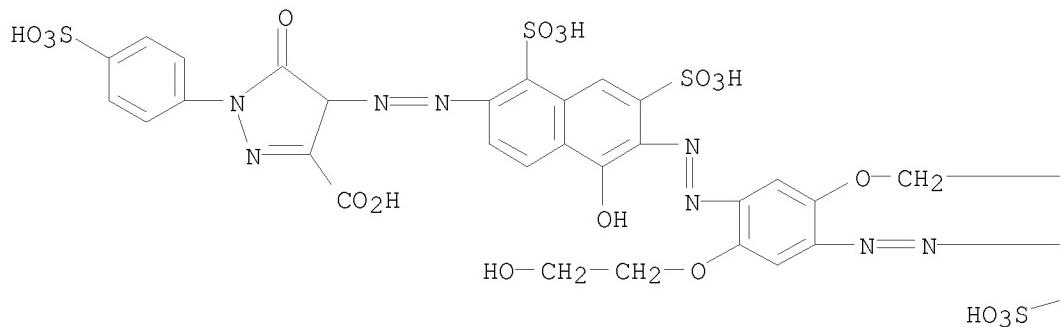
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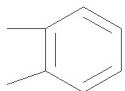
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PAGE 1-A



PAGE 1-B

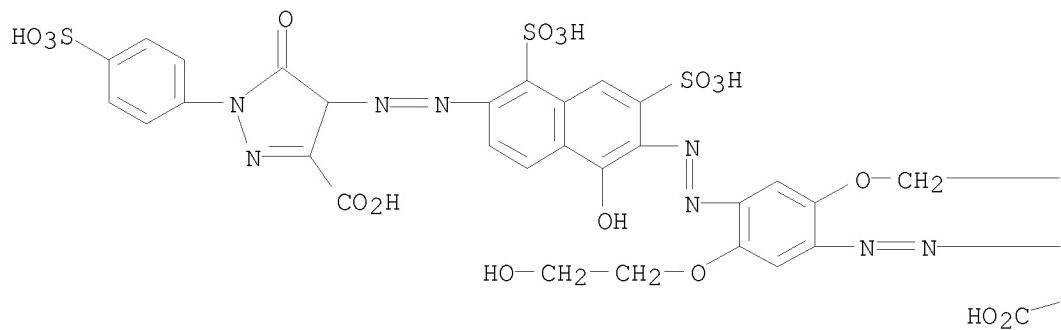
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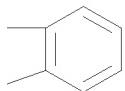
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PAGE 1-A

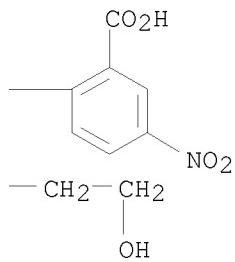
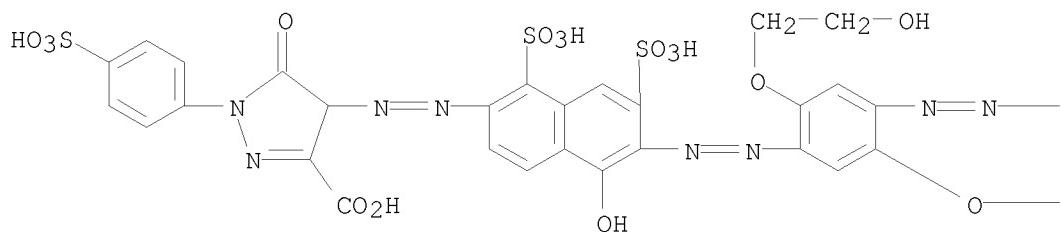


— CH₂ — OH



RN 852909-88-7 CAPLUS

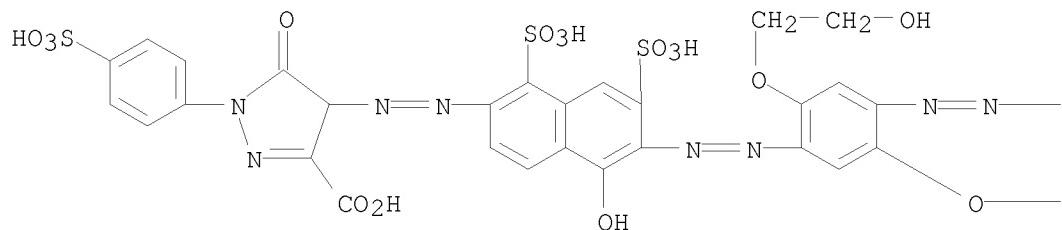
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-nitrophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



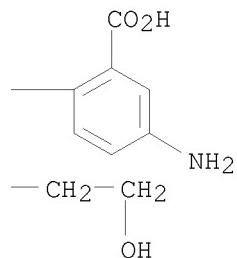
RN 852909-89-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2-carboxyphenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A



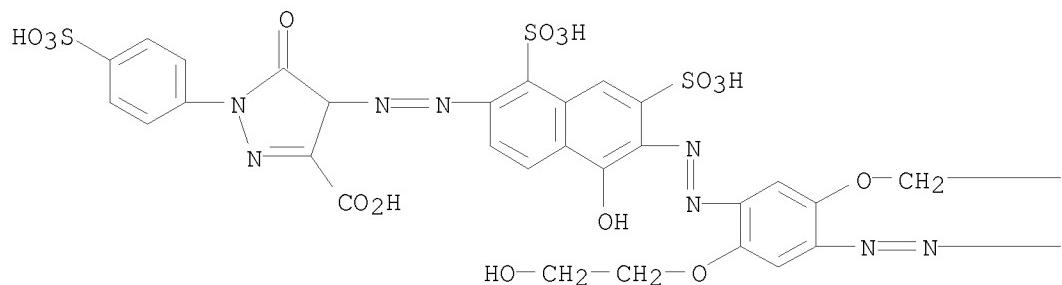
PAGE 1-B



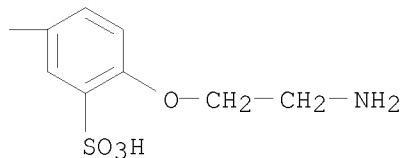
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CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(2-aminoethoxy)-3-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

PAGE 1-A

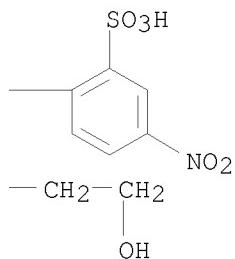
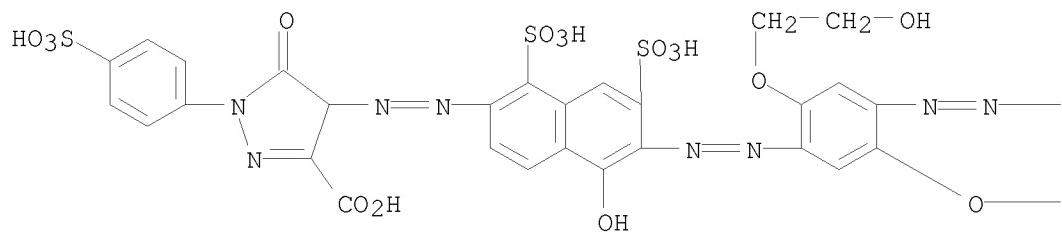


— CH₂— OH



RN 852909-91-2 CAPLUS

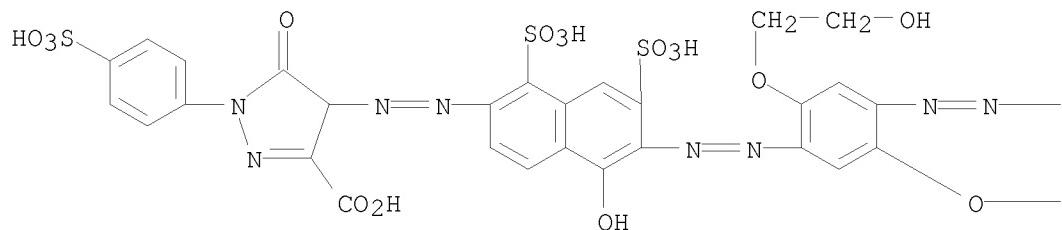
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-nitro-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



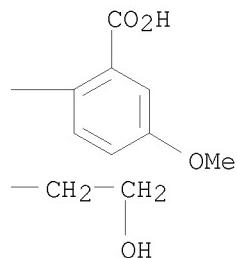
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PAGE 1-A



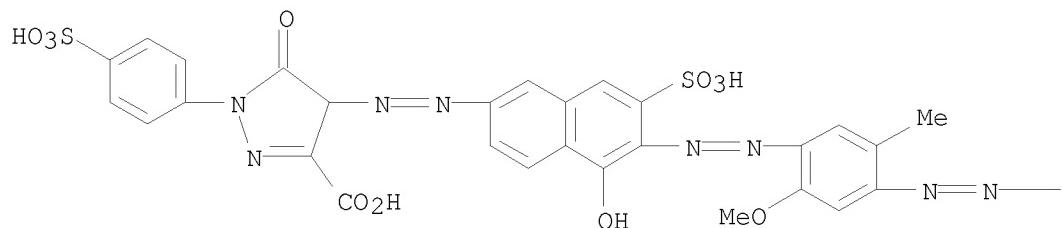
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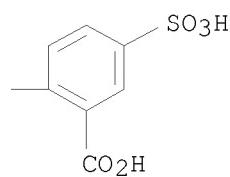
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PAGE 1-A



PAGE 1-B

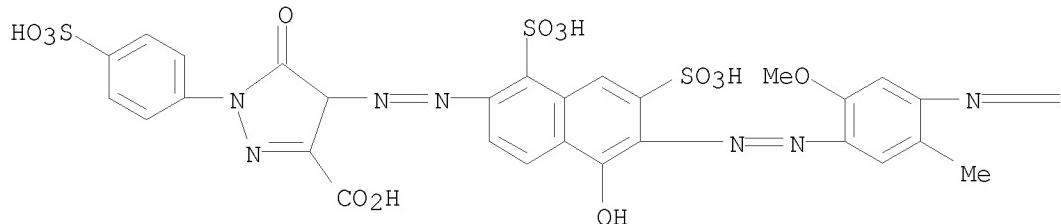


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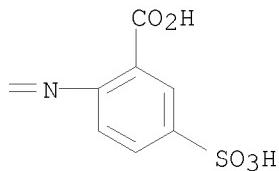
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

INDEX NAME)

PAGE 1-A



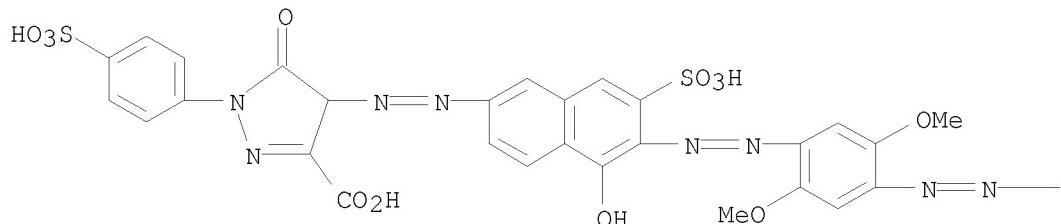
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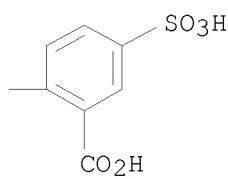
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PAGE 1-A



PAGE 1-B

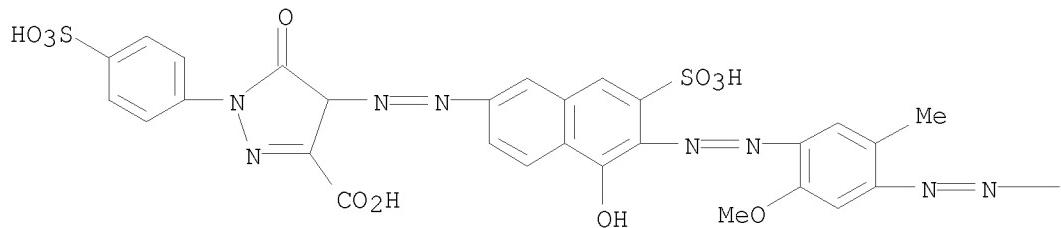


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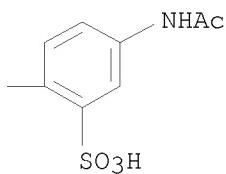
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX)

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PAGE 1-A



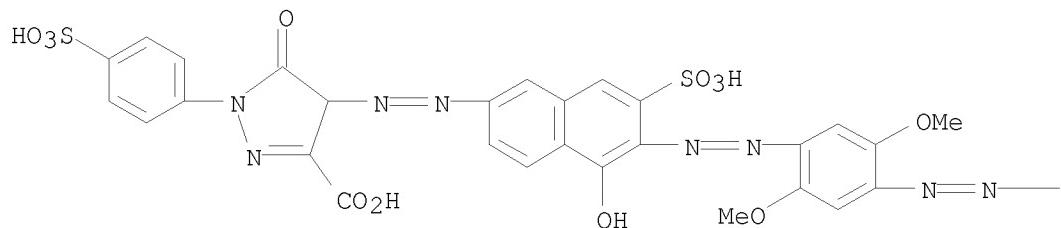
PAGE 1-B



RN 852909-97-8 CAPLUS

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PAGE 1-A



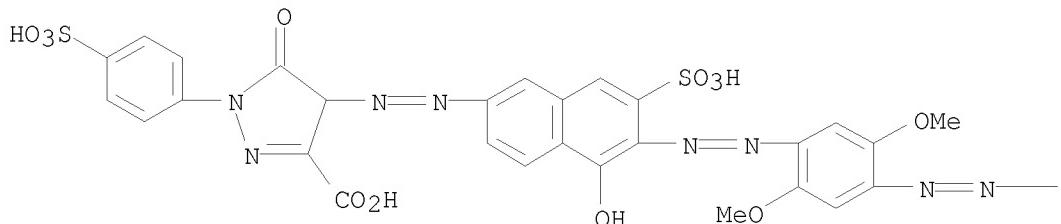
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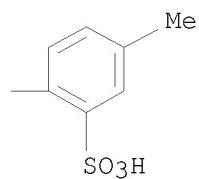
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CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-dimethoxy-4-[2-(4-methyl-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



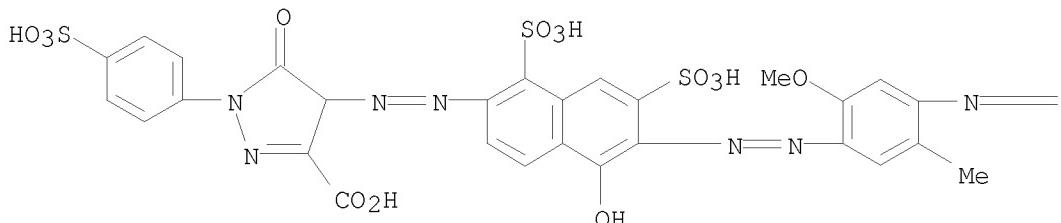
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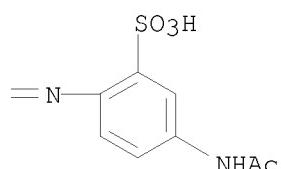
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PAGE 1-A



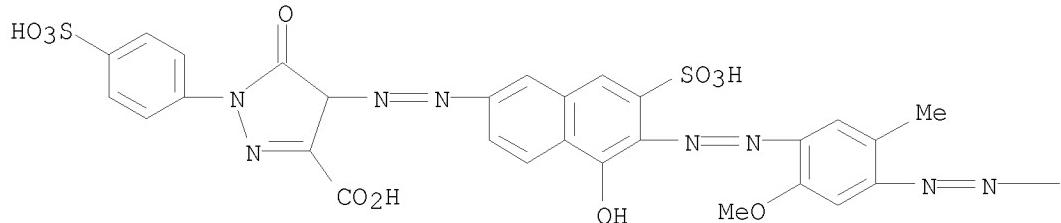
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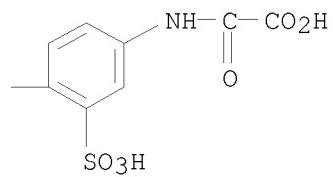
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PAGE 1-A

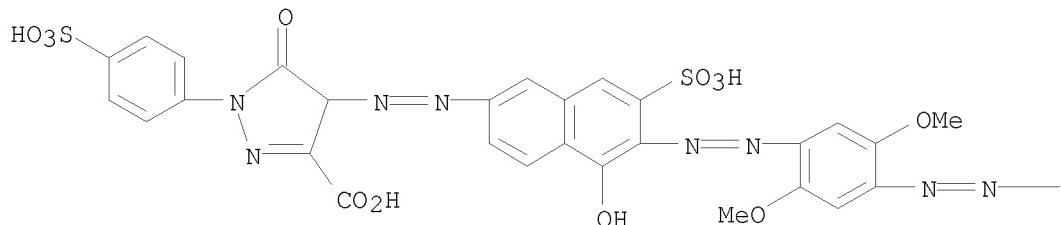


PAGE 1-B

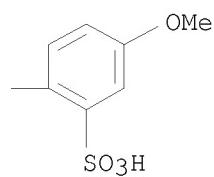


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PAGE 1-A

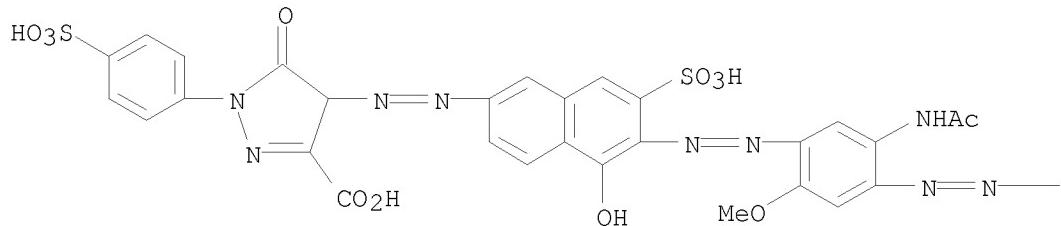


PAGE 1-B

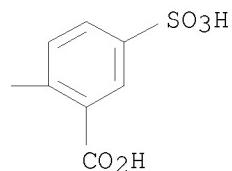


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PAGE 1-A

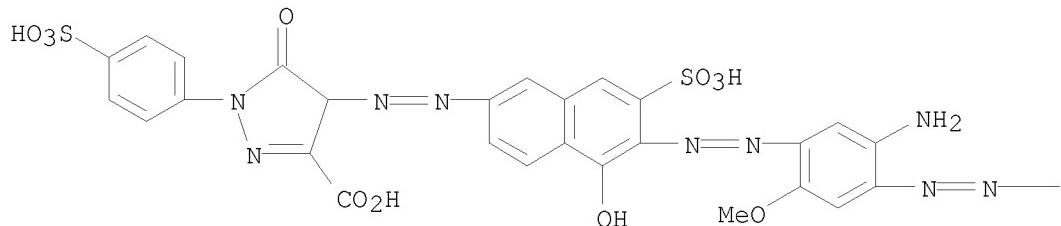


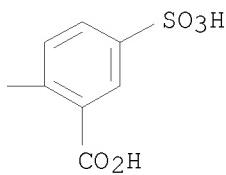
PAGE 1-B



RN 852910-03-3 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[5-amino-4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2-methoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

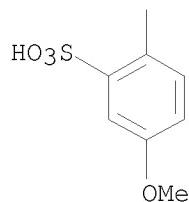
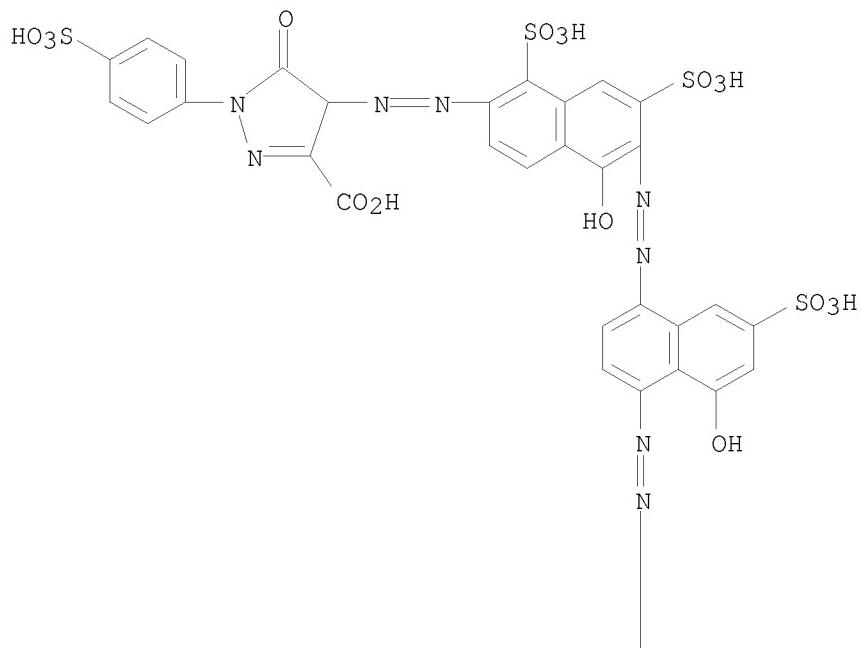
PAGE 1-A





RN 852910-04-4 CAPLUS

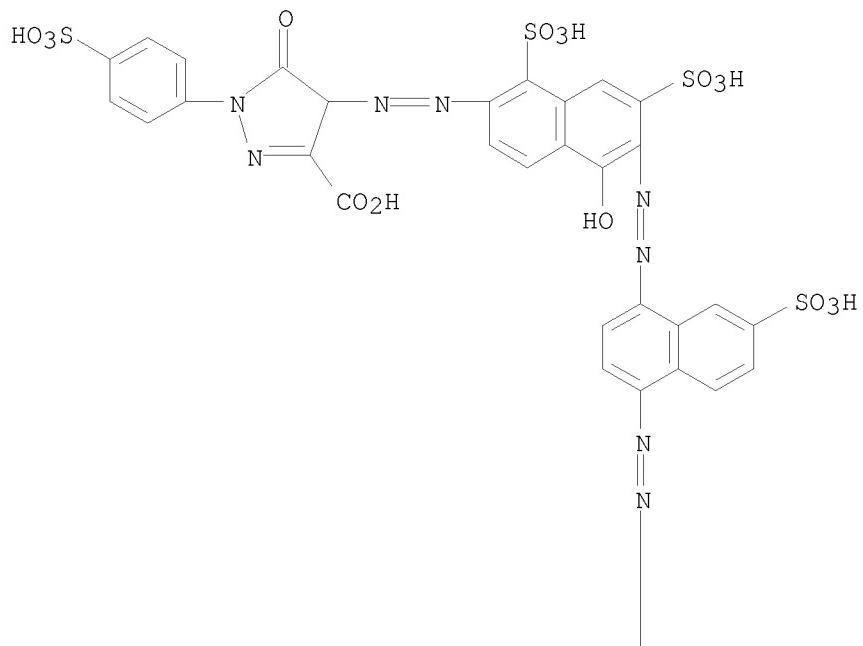
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[5-hydroxy-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



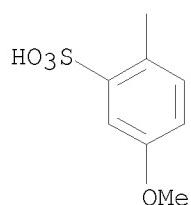
RN 852910-05-5 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(4-methoxy-2-sulfophenyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

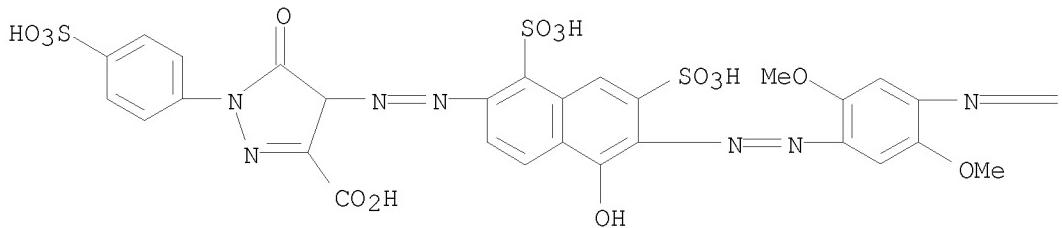


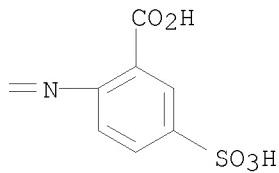
PAGE 2-A



RN 852910-06-6 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



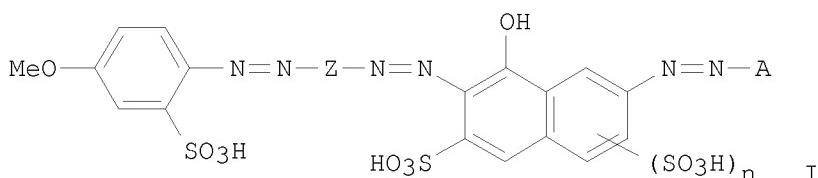


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 (5 CITINGS)
 REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:913245 CAPLUS
 DOCUMENT NUMBER: 139:382775
 TITLE: Trisazo dyes for ink jet printing
 INVENTOR(S): Mistry, Prahalad Manibhai; Bradbury, Roy
 PATENT ASSIGNEE(S): Avecia Limited, UK
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003095563	A1	20031120	WO 2003-GB2007	20030508
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003230002	A1	20031111	AU 2003-230002	20030508
EP 1506260	A1	20050216	EP 2003-722842	20030508
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005525449	T	20050825	JP 2004-503562	20030508
US 20050200671	A1	20050915	US 2004-513472	20041109
US 7041161	B2	20060509		
PRIORITY APPLN. INFO.:			GB 2002-10824	A 20020511
			WO 2003-GB2007	W 20030508

OTHER SOURCE(S): MARPAT 139:382775
 GI



AB Disclosed in a composition comprising a liquid medium and a black trisazo dye (I;

A = pyrazolonyl group; Z = optionally substituted phenylene or naphthylene; n is 0 or 1) or a salt thereof wherein the medium comprises an organic solvent. Inks comprising such compns. have good storage stability and low tendency to block jet-printing nozzles, while prints and images from these compns. have good optical d. and resistance to fading. In an example, 2-sulfo-4-methoxyaniline \rightarrow 2,5-dimethoxyaniline was prepared and diazotized and coupled with gamma acid to give a disazo dye. This intermediate was diazotized and coupled with 1-(4-sulfophenyl)-5-pyrazolone-3-carboxylic acid to provide a trisazo dye.

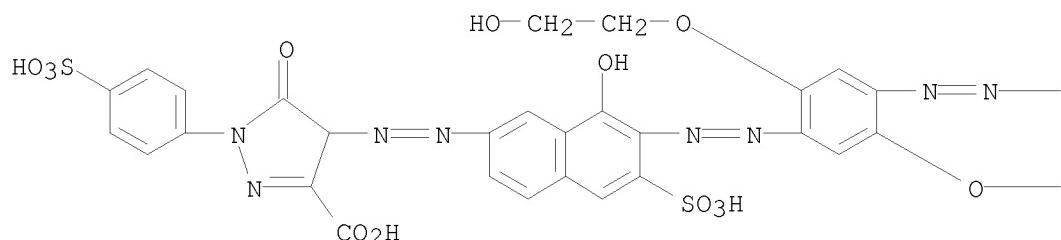
IT 624742-55-8

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; black trisazo dyes for jet printing inks)

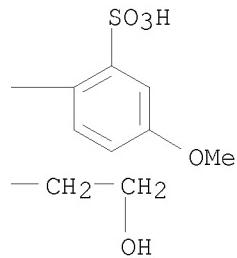
RN 624742-55-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[7-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazencyl]phenyl]diazenyl]-8-hydroxy-6-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

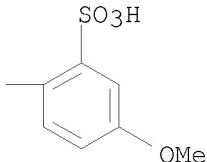
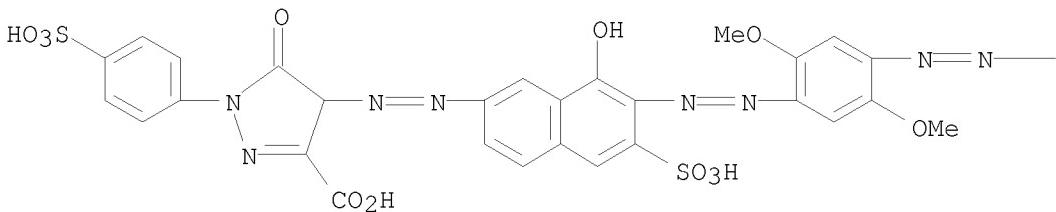


IT 624742-54-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of black trisazo dyes for jet printing inks)

RN 624742-54-7 CAPLUS

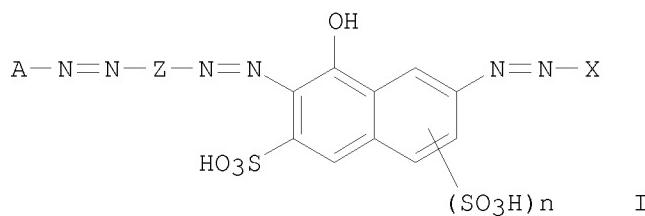
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[7-[2-[2,5-dimethoxy-4-[2-(4-methoxy-2-sulfophenyl)diazencyl]phenyl]diazenyl]-8-hydroxy-6-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
(6 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:913244 CAPLUS
DOCUMENT NUMBER: 139:396968
TITLE: Trisazo dyes for ink jet printing
INVENTOR(S): Mistry, Prahalad Manibhai; Bradbury, Roy
PATENT ASSIGNEE(S): Avecia Limited, UK
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003095562	A1	20031120	WO 2003-GB1981	20030508
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2003227918	A1	20031111	AU 2003-227918	20030508
EP 1506261	A1	20050216	EP 2003-725383	20030508
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529990	T	20051006	JP 2004-503561	20030508
US 20050217535	A1	20051006	US 2004-513750	20041109
US 7052538	B2	20060530		
PRIORITY APPLN. INFO.:			GB 2002-10824	A 20020511
			WO 2003-GB1981	W 20030508
OTHER SOURCE(S):	MARPAT	139:396968		



AB Disclosed is a composition comprising a liquid medium and black trisazo dye I
(A

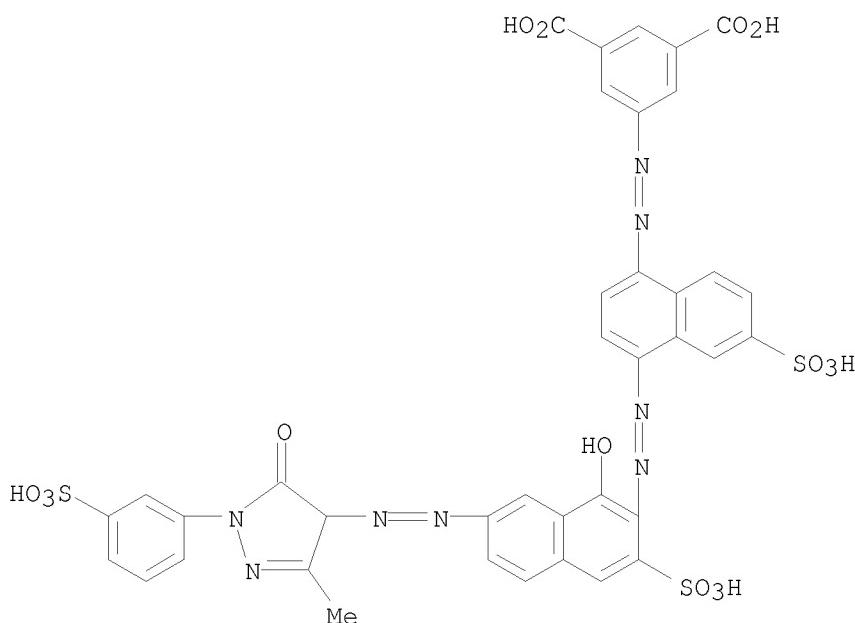
= optionally substituted Ph or naphthyl provided A is not 2-sulfo-4-methoxyphenyl; X = pyrazolonyl group; Z = optionally substituted phenylene or naphthylene; n = 0, 1) wherein the liquid medium comprises an organic solvent. Inks comprising said compns. have good storage stability and low tendency to block jet-printing nozzles, while prints and images from these compns. have good optical d. and resistance to fading. In an example, 5-aminoisophthalic acid→1-naphthylamine was prepared and diazotized and coupled with gamma acid. The resulting disazo dye was then diazotized and coupled with 1-phenyl-5-pyrazolone-3-carboxylic acid to give a trisazo dye (λ_{\max} 578 nm).

IT 625471-46-7P 625471-48-9P 625471-49-0P
625471-50-3P 625471-51-4P 625471-52-5P
625471-53-6P 625471-54-7P 625471-55-8P
625471-56-9P 625471-57-0P 625471-58-1P
625471-59-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(black dye; production of trisazo dyes for ink jet printing)

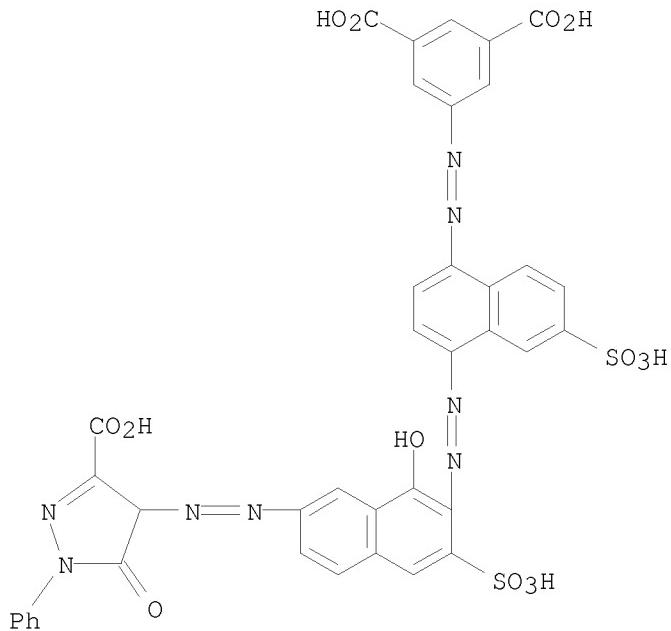
RN 625471-46-7 CAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-[2-[4-[2-[7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(3-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-6-sulfo-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



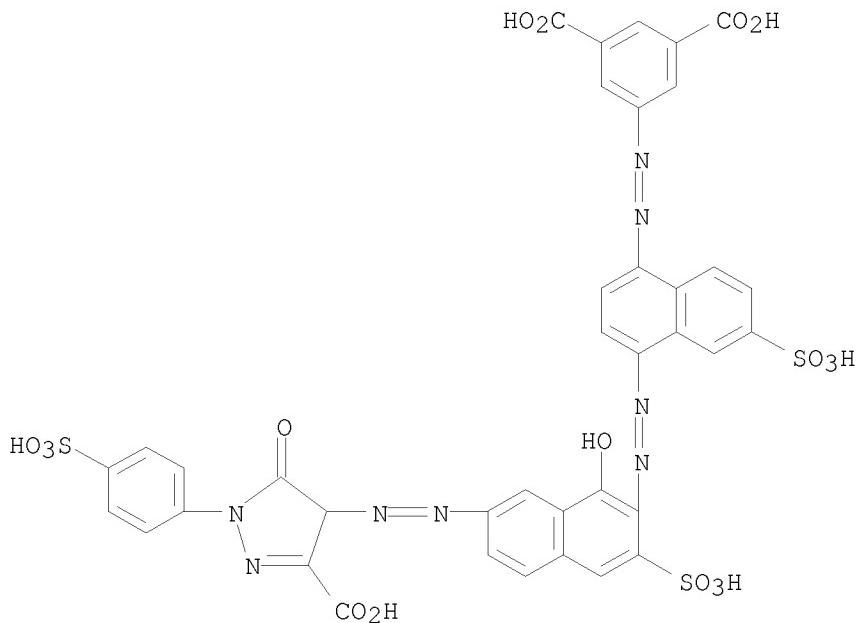
RN 625471-48-9 CAPLUS

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RN 625471-49-0 CAPLUS

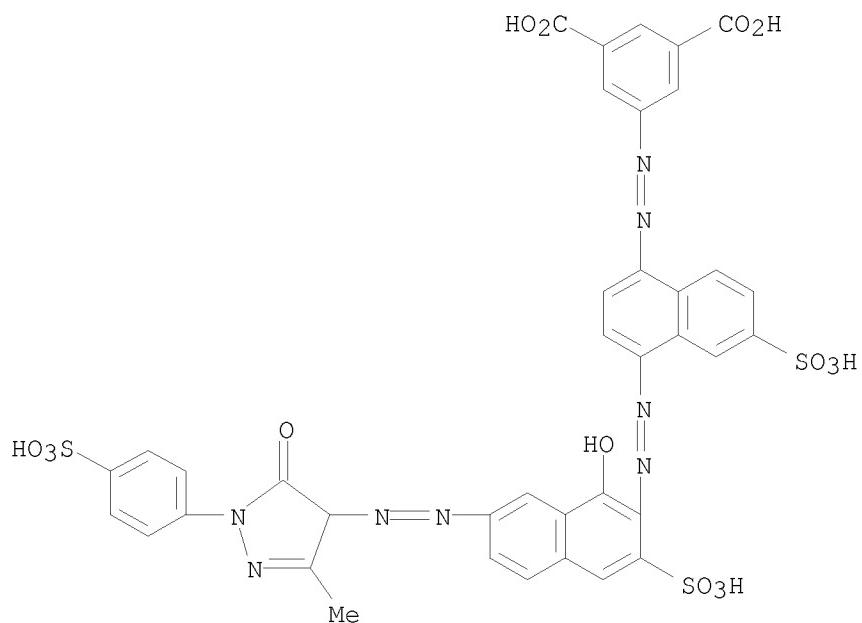
CN 1,3-Benzenedicarboxylic acid, 5-[2-[4-[2-[7-[2-[3-carboxy-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-6-sulfo-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



RN 625471-50-3 CAPLUS

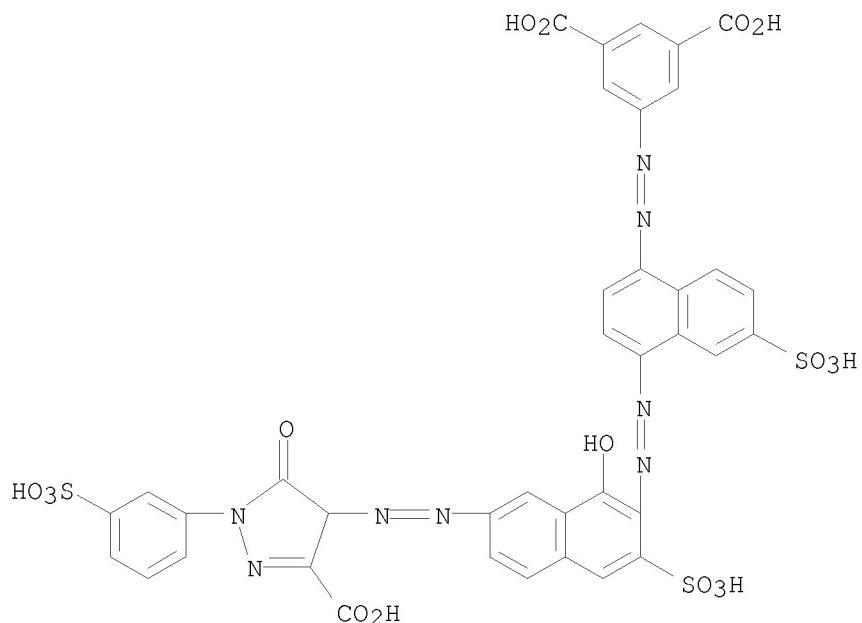
CN 1,3-Benzenedicarboxylic acid, 5-[2-[4-[2-[7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-

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RN 625471-51-4 CAPLUS

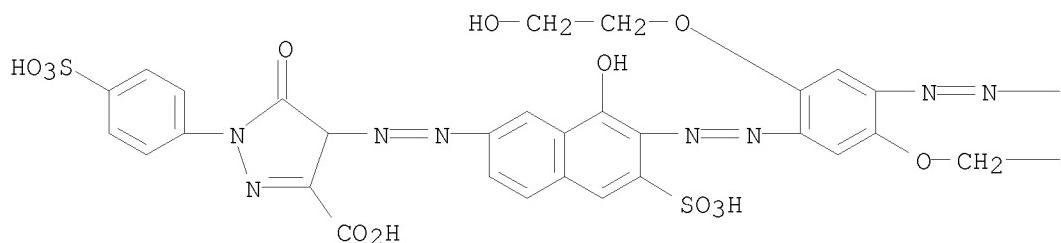
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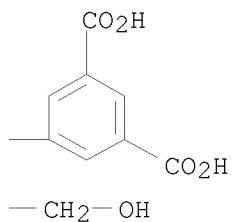
RN 625471-52-5 CAPLUS

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PAGE 1-A

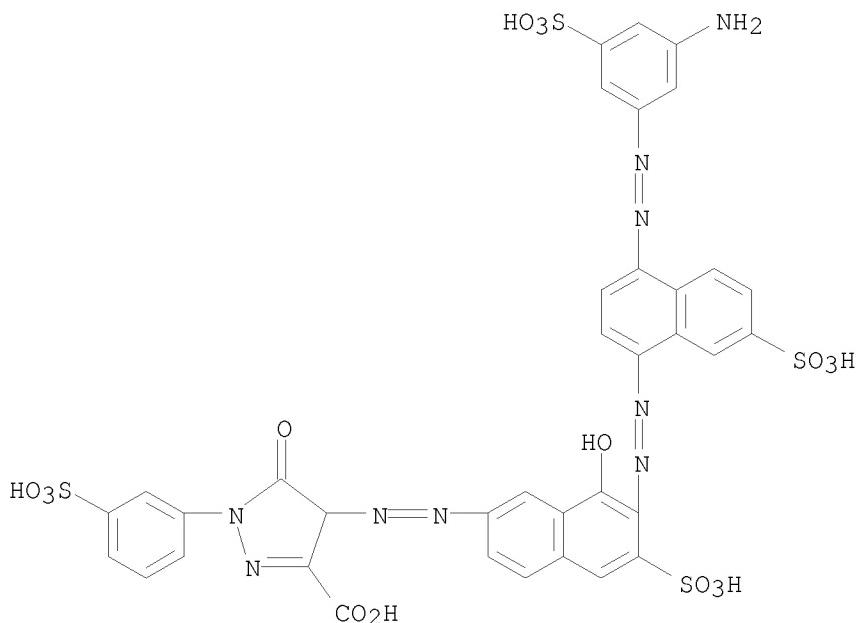


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RN 625471-53-6 CAPLUS

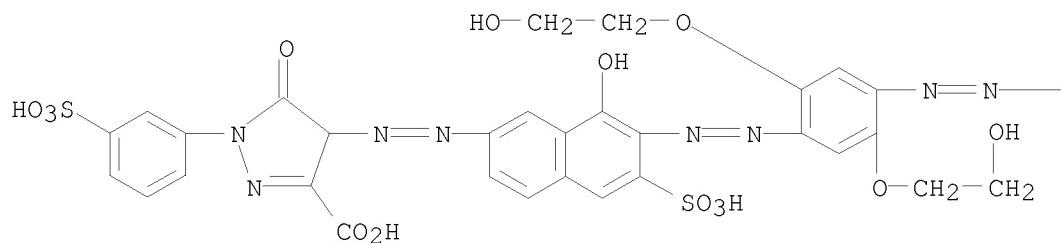
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[7-[2-[4-[2-(3-amino-5-sulfophenyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-8-hydroxy-6-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(3-sulfophenyl)- (CA INDEX NAME)



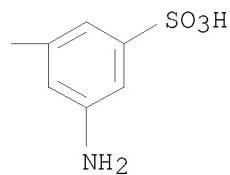
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PAGE 1-A



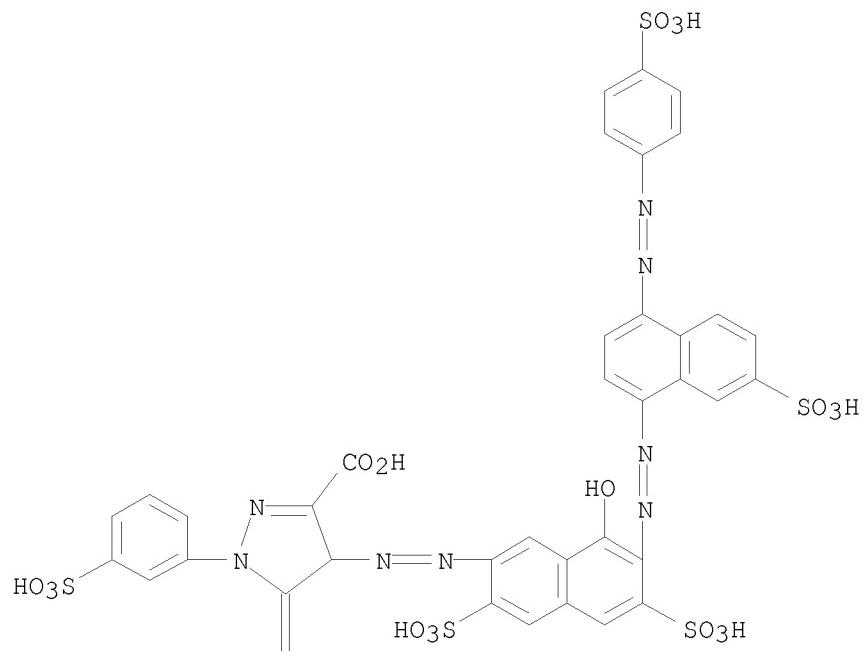
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RN 625471-55-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[8-hydroxy-3,6-disulfo-7-[2-[7-sulfo-4-[2-(4-sulfophenyl)diazenyl]-1-naphthalenyl]diazenyl]-2-naphthalenyl]diazenyl]-5-oxo-1-(3-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



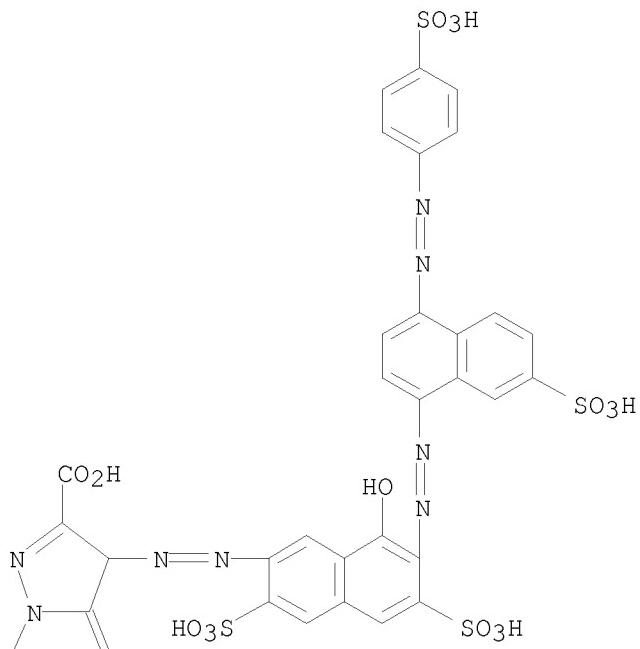
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RN 625471-56-9 CAPLUS

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PAGE 1-A



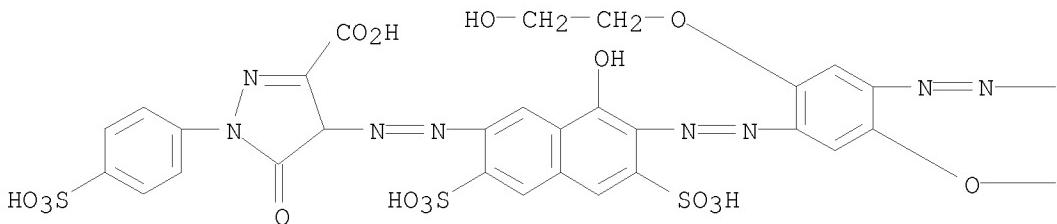
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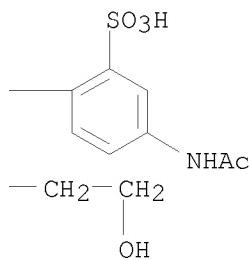
RN 625471-57-0 CAPLUS

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PAGE 1-A



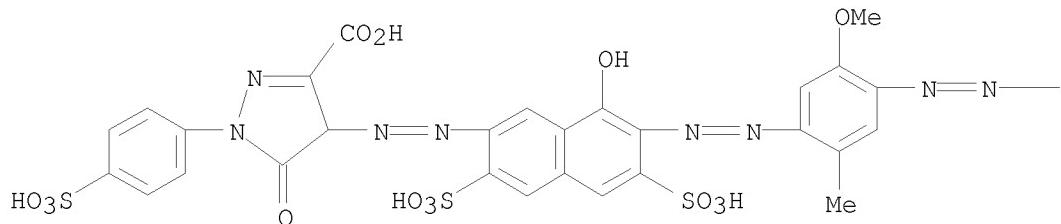
PAGE 1-B



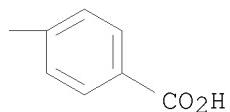
RN 625471-58-1 CAPLUS

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PAGE 1-A



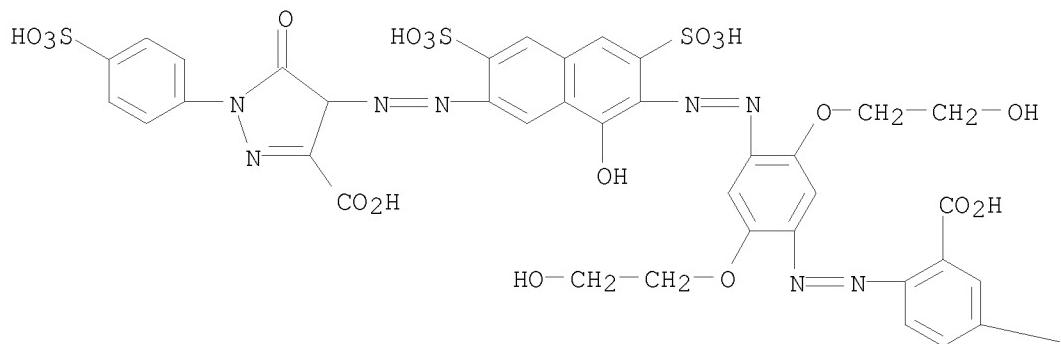
PAGE 1-B



RN 625471-59-2 CAPLUS

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PAGE 1-A

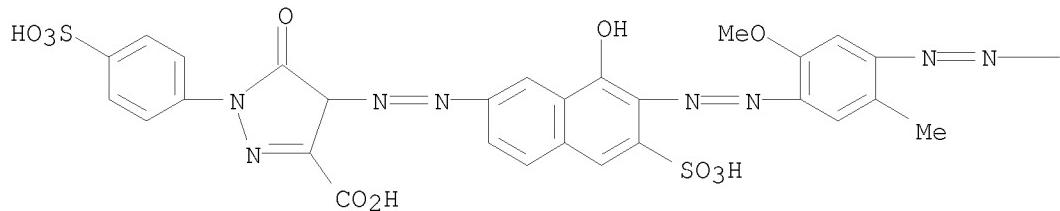


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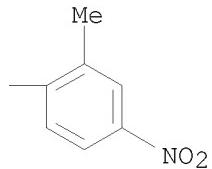
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IT 625471-60-5 625471-61-6 625471-62-7
RL: TEM (Technical or engineered material use); USES (Uses)
(black dye; trisazo dyes for ink jet printing)
RN 625471-60-5 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[8-hydroxy-7-[2-[2-methoxy-
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PAGE 1-A

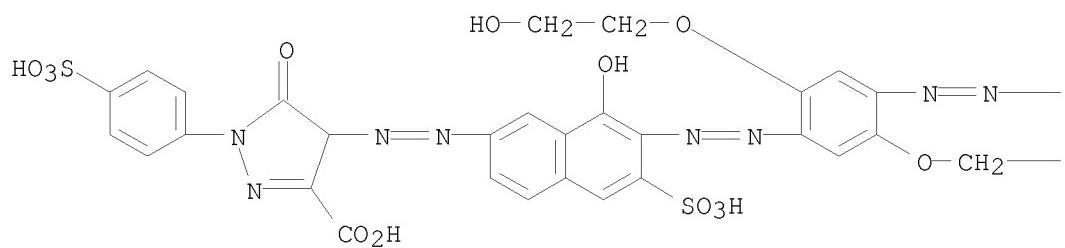


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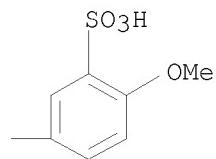


RN 625471-61-6 CAPLUS
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naphthalenyl]diazaryl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX
NAME)

PAGE 1-A



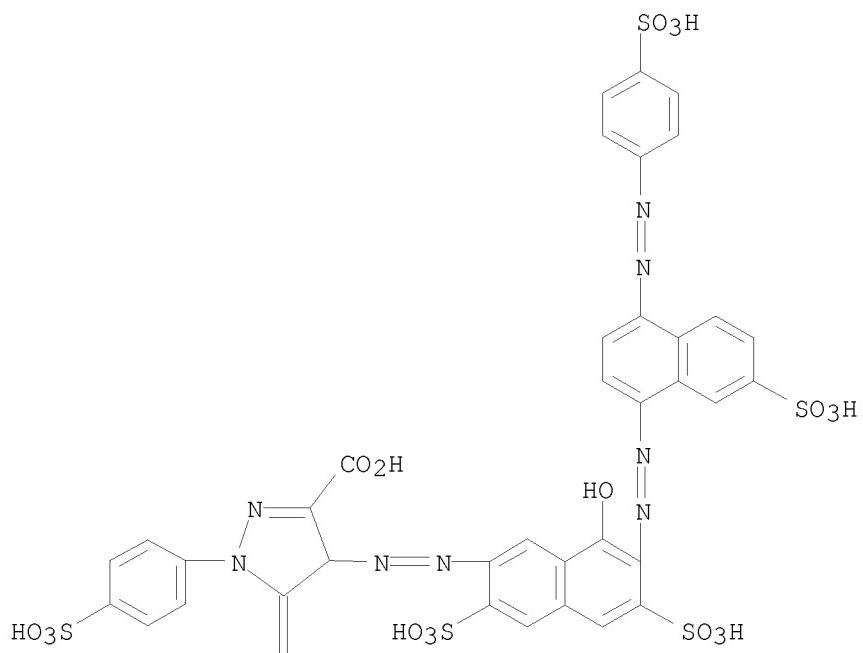
PAGE 1-B



RN 625471-62-7 CAPLUS

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PAGE 1-A



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OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
 (1 CITINGS)
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1998:488144 CAPLUS
 DOCUMENT NUMBER: 129:190457
 ORIGINAL REFERENCE NO.: 129:38685a,38688a
 TITLE: Lightfast anion black dyes for paper, pulp, leather,
 cellulose fibers, inks, etc.
 INVENTOR(S): Inoue, Kaname; Imanaka, Hiroshi
 PATENT ASSIGNEE(S): Nippon Chemical Works Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10195320	A	19980728	JP 1997-3673	19970113
JP 4125801	B2	20080730		
PRIORITY APPLN. INFO.:			JP 1997-3673	19970113
OTHER SOURCE(S):	MARPAT	129:190457		
GI				

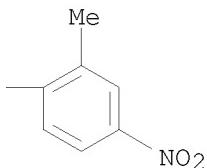
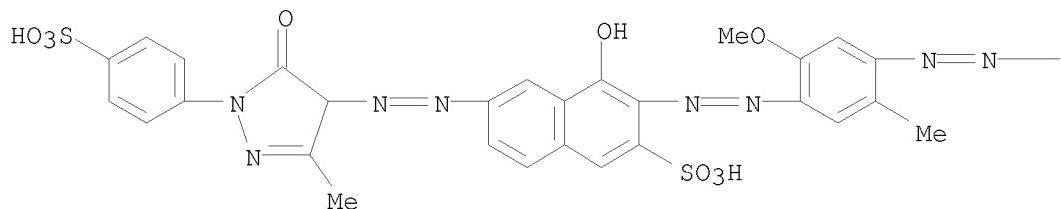
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title dyes are I (or metal complexes thereof), wherein R1, R2 = C1-4 alkyl, alkoxy, OH, nitro, halogen, cyano, CF₃, SO₃H, SO₂R₅, SO₂NR₆R₇, CO₂H, CONR₈R₉; R₃ = H, C1-4 alkyl, alkoxy, OH, C1-3 dialkylamino, NHCO₁₀; R₄ = H, C1-3 alkyl; m = 0-3; n = 1, 2; K = coupling component III, III or IV when n = 1 and V, VI or VII when n = 2; R₅ = C1-4 alkyl; R₆₋₉ = H, C1-4 alkyl; R₁₀ = amino, C1-3 alkyl; R₁₁ = C1-3 alkyl, alkoxy; R₁₂ = C1-3 alkyl, acetyl, carbonylaminio; a, d, e, f, g = 1-2; X = direct bond, alkylene carbonyl; b = 1-3; c = 0-1; R₁₂, R₁₄ = C1-3 alkyl, alkoxy, halogen; C₁₅ = C1-3 alkyl, alkoxy, halogen; R₁₅ = C1-3 alkyl, carbonyl, carbomethyl; R₁₆, R₁₇ = H, C1-3 alkyl; A = CO, C1-4 alkylene; R₁₈ = C1-4 alkylamine, C1-4 alkanolamine, aromatic amine, OH. P-nitroaniline was diazotized, coupled with 2,5-dimethoxyaniline, the coupling product diazotized, further coupled with γ acid, the coupling product diazotized, and coupled with m-phenylenediamine-4-sulfonic acid to obtain a desired. dye.

IT 211809-50-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (lightfast anion black dyes for paper, pulp, leather, cellulose fibers, and inks)

RN 211809-50-6 CAPLUS

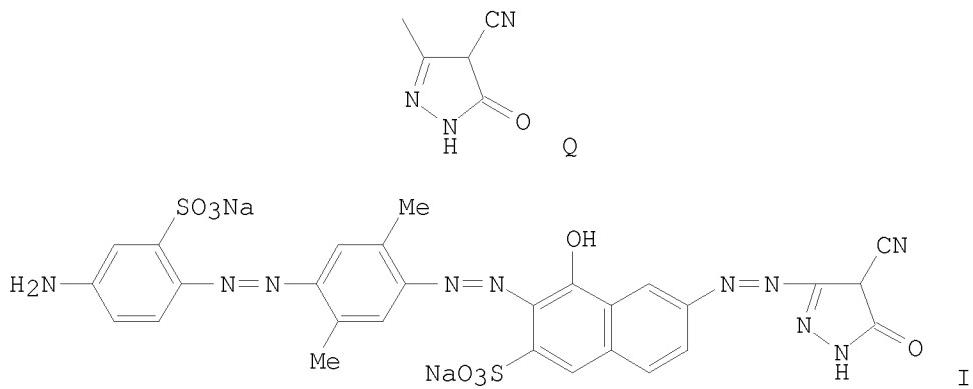
CN 2-Naphthalenesulfonic acid, 6-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-[2-methoxy-5-methyl-4-[2-(2-methyl-4-nitrophenyl)diazenyl]phenyl]diazenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD
(3 CITINGS)

L9 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:38338 CAPLUS
DOCUMENT NUMBER: 112:38338
ORIGINAL REFERENCE NO.: 112:6621a,6624a
TITLE: Inks containing azo dyes with cyanopyrazolinone groups
for jet printing
INVENTOR(S): Sakaeda, Takeshi; Suga, Yuko; Shirota, Katsuhiro
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01135880	A	19890529	JP 1987-294035	19871124
PRIORITY APPLN. INFO.:			JP 1987-294035	19871124
GI				



AB The title inks, anticlogging with good storage stability, comprise ≥ 1 of dyes containing structural unit **Q** in the mol. Thus, a composition of compound **I** 4, diethylene glycol 30, and H₂O 66% was anticlogging and storage-stable and produced light- and water-resistant prints on a variety of papers.

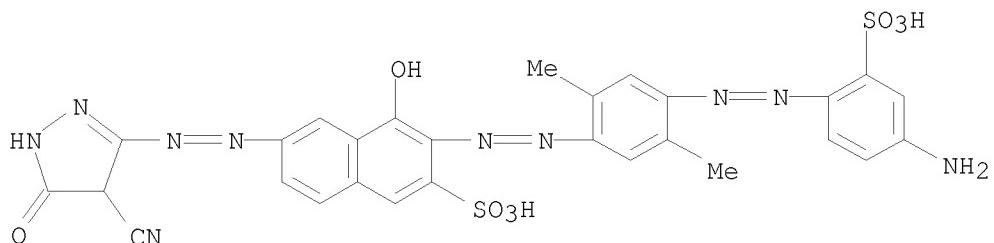
IT 124673-71-8

RL: USES (Uses)

(inks containing, black, for jet-printing)

RN 124673-71-8 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[4-[2-(4-amino-2-sulfophenyl)diazenyl]-2,5-dimethylphenyl]diazenyl]-6-[2-(4-cyano-4,5-dihydro-5-oxo-1H-pyrazol-3-yl)diazenyl]-4-hydroxy-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L9 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1964:462105 CAPLUS
DOCUMENT NUMBER: 61:62105
ORIGINAL REFERENCE NO.: 61:10810c-h,10811a-b
TITLE: Metalized dis- and trisazo reactive dyes
INVENTOR(S): Andrew, Herbert F.; Baker, Ronald
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
SOURCE: 20 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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GB 951471	19640304	GB 1961-19080	19610526
US 3207746	19650921	US 1962-194173	19620511
PRIORITY APPLN. INFO.:		GB	19610526

GI For diagram(s), see printed CA Issue.

AB The title compds. contain 0.5, 1, or 2 metal atoms per mol. and are less substantive than some polyazo direct dyes thereby reducing the staining of adjacent undyed or different colored areas during washing of cellulosic textiles dyed with the compds. Cu or Co complexes were prepared from compds. of the general formula I, where A is H or NaO₃S, and X is either (1) a triazinylamino group containing two Cl substituents or one Cl and one sulfonated anilino group, or (2) a 1-phenyl-5-pyrazolonylazo group bearing a triazinylamino group substituted as under 1. Thus, 2,5-(HO₃S)2C₆H₃NH₂ (II) was diazotized and coupled in alkaline medium with 1,2,5,7-Cl(H₂N)(HO)C₁₀H₄SO₃H (III) and the product diazotized and coupled in alkaline medium with 2,5,1,7-H₂N(HO)C₁₀H₄(SO₃H)₂ (IV), yielding a disazo compound, which was copperized by boiling for .apprx.1 hr. in an aqueous solution

containing 2% NaOH, 2% glycerol, and 1.5 moles CuSO₄, the Cl group being replaced by an OH group under these conditions. A solution containing the product 10.2 and H₂O 200 was added gradually to a suspension of cyanuric chloride (V) 2.22, H₂O 27, and ice 50 parts at 0-5° and pH 6.5-7.0, the pH being maintained by addition of Na₂CO₃ solution 3-NaO₃SC₆H₃NET₂ (VI) 4.7 and NaHSO₄ 0.3 were added, the solution poured into Me₂CO, precipitating I (A = NaO₃S, X = dichlorotriazinylamino), which was filtered, mixed with VI 1.88 and NaHSO₄ 0.12 part and dried. It dyed cotton light- and wetfast green shades. Similarly other I were prepared (reactants, metal, and shade given): (II → III) → IV, V, 3-NaO₃SC₆H₄NH₂ (VII), Co, blue (the Cu complex of (II → III) → IV was prepared, demetalized by stirring 18 hrs. at 20-5° in concentrated HCl, and treated with neutral aqueous CoCl₂ at 95° for 18 hrs.); [(II → III) → IV] → 1-(2-methyl-3-amino-5-sulfophenyl)-3-methyl-5-pyrazolone (VIII), V, 3,5-(HO₃S)2C₆H₈NH₂ (IX), Cu, yellowish green; [(II → III) → 2,5,7-H₂N(HO)C₁₀H₅SO₃H (X)] → VIII, V, IX, Cu, green.

Either 3,4-HO₃S(H₂N)C₆H₄NHAc or the 4,3-isomer was coupled with III and the products coupled with 3,6,2- or 6,8,2(HO₃S)2C₁₀H₅OH, the AcNH group being deacetylated and the Cl group being replaced by OH during subsequent alkaline metalization. The Cu or Ni complexes of XI, where Y or Z is NaO₃S, the other being H, were either (1) condensed with V, further condensed with VII, and treated with pyridine (XII) or mercaptobenzothiazole (XIII) or (2) coupled with a pyrazolone compound containing a 1-(3-aminophenyl) group, condensed with V, and further condensed with IX. Dyes prepared from the XI type intermediate were (reactants, metal, and shade given):

[2,5-HO₃S(AcNH)C₆H₃NH₂ (XIV) → III] → 6,8,2-(HO₃S)2C₁₀H₅OH (XV), V, Ni, blue (prepared from demetalized Cu complex); (XIV → III) → XV, V, VII, treated with XII, Cu, green; [2,4-HO₃S(AcNH)C₆H₃NH₂ (XVI) → III] → 3,6,2-(HO₃S)2C₁₀H₅OH (XVII), V, VII, treated with XIII, Cu, bluish green; [(XIV → III) → XV] → VIII, V, Cu, yellowish green; [(XIV → III) → XV] → 1-(3-aminophenyl)-5-pyrazolone-3-carboxylic acid, V, IX, Cu, yellowish green. Other dis- and trisazo reactive dyes containing one or two chlorotriazinyl groups were prepared (reactants, metal, and shade given): [(2-HO₃SC₆H₄NH₂ (XVIII) → III] → IV] → VIII, V, 2,4-HO₂C(HO₃S)C₆H₃NH₂, Cu, yellowish green; [(XVIII → III) → IV] → VIII, V, VII, Cu, green; [(2,5-HO(HO₃S)C₆H₃NH₂ → III] → IV] → 1-(2-methyl-3-(4,6-dichlorotriazin-2-ylamino)-5-sulfophenyl)-3-methyl-5-pyrazolone, Cu (2 atoms/mol.), green; (XIV → III) → 8,5,7,1-H₂N(HO₃S)2C₁₀H₄OH, V, Cr (prepared from demetalized Cu complex), gray green; [(XIV → III) → IV, V] → 1-(3-sulfophenyl)-5-pyrazolone-3-carboxylic acid, Cu, green; (XIV → III) → IV, V, 3-HO₃SC₆H₄NHMe, V, Cu, green (bluish green before the last condensation with V):

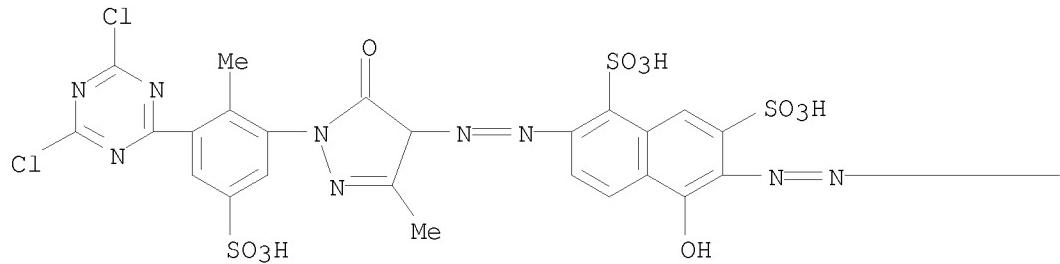
IT 859452-14-5, 1,7-Naphthalenedisulfonic acid,

6-[[1-chloro-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-7-sulfo-2-naphthyl]azo]-2-[[1-[3-(4,6-dichloro-s-triazin-2-yl)-5-sulfo-o-tolyl]-3-methyl-5-oxo-2-pyrazolin-4-yl]azo]-5-hydroxy-
(reaction product with Na N,N-diethylmetanilate, Cr complex)

RN 859452-14-5 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[1-chloro-5-hydroxy-6-[2-(2-hydroxy-5-sulfophenyl)diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-2-[2-[1-[3-(4,6-dichloro-1,3,5-triazin-2-yl)-2-methyl-5-sulfophenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

